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MIND WEAPON

DARPA - nano technology

NAVAL - research laboratory satellite

MARYLAND - super computers

PHILIPS LABS - laser test of energy



NAVAL - research laboratory complex Washington

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1. SATELLITE »MIND CONTROL« - BIOELECTRIC WEAPON



SOME INFORMATIONS

"The events at the international political scene, in the last few years, confirm that the concept of remote control of human brain is a matter of negotiations. In January 1999 the European Parliament passed a resolution where it calls for an international convention introducing a global ban on all developments and deployments of weapons which might enable any form of manipulation of human beings."

MIND CONTROL WEAPON

9. september 2008

The term "Mind control" basically means covert attempts to influence the thoughts and behavior of human beings against their will (or without their knowledge), particularly when surveillance of an individual is used as an integral part of such influencing and the term "Psychotronic Torture" comes from psycho (of psychological) and electronic. This is actually a very sophisticated form of remote technological torture that slowly invalidates and incapacitates a person. These invisible and non-traceable technological assaults on human beings are done in order to destroy someone psychologically and physiologically. Actually, as per scientific resources, the human body, much like a computer, contains myriad data processors. They include, but are not limited to, the chemical-electrical activity of the brain, heart, and peripheral nervous system, the signals sent from the cortex region of the brain to other parts of our body, the tiny hair cells in the inner ear that process auditory signals, and the light-sensitive retina and cornea of the eye that process visual activity. We are on the threshold of an era in which these data processors of the human body may be manipulated or debilitated.

Definition of psychotronic (psycho-physical) weapons

Psychotronic Weapons (PF- weapons) this is the totality of all possible methods and means (techno-genic, suggestive, pharmacological, paranormal, complexes, and others) of hidden, forced influences on the psyche of a person for the purpose of modifying his consciousness, behavior and health for what is desired in the way of influencing aspects of control..." This is not only dangerous, this is deadly!"

The First phase is the harassment/surveillance program.

They use Echelon, Tempest, microchips, implants, see through wall radar, obtain informants, neighbors, and co-conspirators to harass, discredit, and harm an individual. Victims lose their families, jobs, homes, and cars. Ultimate goal to destroy a person's life which will isolate them from family, friends. The isolation is needed to have access to the person to conduct many of the experiments on them.

The second phase is the assaults of Directed Energy Weapons.

After a victim becomes isolated from everyone in the world. The victim now having feelings of regret, remorse, of loss, trauma, and are drained and broken emotionally and physically. During this time many have been implanted with microchips. Many begin experiencing extreme pain to their head. Some hear voices. Then pain is delivered to various other parts of their bodies. The pain is delivered by Directed Energy Weapons.

Directed Energy Weapons.

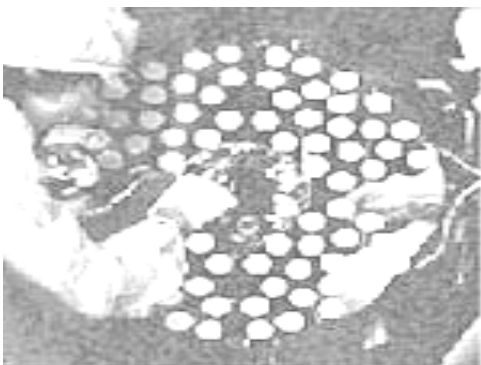
Some of the weapons were known as non-lethal weapons. They use such weapons as extremely low frequency ELF electromagnetic weapons (which has been used in mind control), acoustics, harmonics (which have been used as a mind control technique), ultrasound, microwave audiograms, microwave pulsed, and radio frequency. Another electromagnetic energy beam can be used to induce "considerable agitation and muscular activity" or "induce muscular weakness and lethargy" this weapon is known as Ultra High Frequency EM. Psychological warfare tactics are being used against unsuspecting citizens to destroy their jobs, their families and their lives. The perpetrators will stop at nothing. Their objective is to utterly destroy a person, very often resulting in a person taking his or her own life, or ending up in a mental hospital. This has been taking place for years and nothing is ever said about it. Nothing is ever written about it. Some people also experience electronic harassment. This is extremely distressing, painful and invasive, and feels like one's mind and body is undergoing constant rape, 24 hours a day, 7 days a week. The technology used to do this is unknown, but hundreds of victims report the same physical sensations and experiences. Many take their lives in an attempt to escape the horror. The technology involves the use of electromagnetic waves of various frequencies to achieve different results. Some frequencies will make a person tired, while others may cause confusion or memory loss. "Electronic harassment" or e-harassment is a catch-all term used to describe a group of circumstances which a large number of people are currently experiencing in common.

Saturday, Februar 19, 2011

PSYCHOTRONIC WEAPONS - BRAIN MANIPULATION FROM A DISTANCE

In October 2010, the congressman Denis J. Kucinich introduced in the American Congress A bill, obliging the American president to get engaged in the negotiations aimed at the ban of space based weapons. In this bill the definition of a weapon system includes: any other unacknowledged or as yet undeveloped means inflicting death or injury on, od damaging or destroying, a person(or the biological life, bodily health, mental health, or physical and economic well-being of a person) through the use of land-based, sea-based,or space-based systems using radiation, electromagnetic, psychotronic, sonic, laser, or other energies directed at individual persons or targeted populations or the purpose of information war, mood management, or mind control of cush persons or populations. As in all legislative acts quoted in this article the bill counts with sound, light or electromagnetic stimulation of human brain.Psychotronic fweapons remain, at least for a layman uninformed of secret military research, in the sphere of science fiction, since so far none of the published scientific experiments was presented in the way which would allow for its replication.

That it is feasible to manipulate human behavior with the use of subliminal, either sound or visual, messages is now generally known. This is why in most of the countries the use of such technologies, without consent of the user, is banned. Devices using light for the stimulation of the brain show another way how the light flashing in certain frequencies could be used for the manipulation of human psychic life. As for the sound, a report on the device transmitting a beam of sound waves, which can hear only persons at whon the beam of sound waves is targeted, appeared last year in the world newspapers.



The beam is formed by a combination of sound and ultrasound waves which causes that a person targeted by this beam hears the sound inside of his head. Such a perception could easily convince the human being that it is mentally ill. The acts presented in this article suggest that with the develpment of technology and knowledge of the functioning of human brain new ways of manipulation of human mind keep emerging. One of them seem to be the **electromagnetic energy**.

2. BRAIN-MACHINE INTERFACE

Robert Asher, Sandia National Laboratories

June 2002, Arlington, Virginia

Increasingly, the human is being asked to take in multisensory inputs, to make near-instantaneous decisions on these inputs, and to apply control forces to multitask and control machines of various sorts. The multitasking, multisensor environment stresses the human, yet, more and more s/he being asked to operate in such an environment. As an example, the visionary project on uninhabited combat vehicles discusses an increased workload in piloting combat vehicles. DARPA has a brain-machine interface program about to start. This program has as its goal human ability to control complex entities by sending control actions without the delay for muscle activation. The major application for this program is control of aircraft. The intent is to take brain signals and use them in a control strategy and then to impart feedback signals back into the brain.

The DARPA program could be extended to include a broader range of potential impact by including the possibility of other applications: learning and training, automobile control, air traffic control, decision-making, remote sensing of stress, and entertainment. Learning and training might be implemented as information coded into brain signals and then input into the person. Air traffic control in increasingly busy skies can use such capability: the controller has multiple inputs from multiple aircraft. These can be input into his brain in a 3-D aspect and an alertness signal used to "wake him up" when his attention drifts beyond acceptable limits. Not only intellectual data might be passed from one person to another without speaking, but also emotional and volitional information. Decisionmaking may become more precise as emotional, fatigue, and other cognitive states can be appraised prior to making a critical decision. The potential impact on automobile safety is great. The driver can have quicker control of his automobile (Fig. E.15), allowing for safer driving while reducing the car-to-car spacing on congested highways. This would help alleviate highway congestion and the need for more highways. Furthermore, it would allow for safer driving as driver attention can be measured and the driver "alerted" or told in some manner to pay attention to his or her driving when attention wanders beyond safe margins. It can allow for detection of driver impairment so that the vehicle may be made either not to start or to call emergency.

Direct connection into the brain could yield a revolution in entertainment, as people may be "immersed," MATRIX-style, into the midst of a movie or educational show. Can you imagine the impact of being immersed in a fully 3-D audio-visual simulation of the battle of Gettysburg?



Hands-off control of an automobile through a device for reading and implanting brain waves.

Role of Converging Technologies

Nano. The brain-machine interface effort will require nanotechnologies in order to make the required experimental measurements and to implement the devices for both receiving brain electromagnetic signals and transmitting signals back into the brain.

Bio. This is a highly biological, neuroscience effort, which requires detailed understanding and measurements of the brain's electromagnetic activity. It requires a significant measurement protocol.

Cogno. This effort by its very nature will directly affect the cognitive aspects of the individual by externally applied electromagnetic fields by implanting information for the individual. Thus, this effort can lead to increased learning and other cognitive results.

Transforming Strategy to Reach the Vision

To achieve these goals, enter a partnership with DARPA to fund additional technologies and applications that would enhance the brain-machine interface effort. Work should be focused on the goals of using the technologies for cognitional aspects, understanding memory, and learning brain function to be able to design devices to increase their capabilities.

Estimated Implications

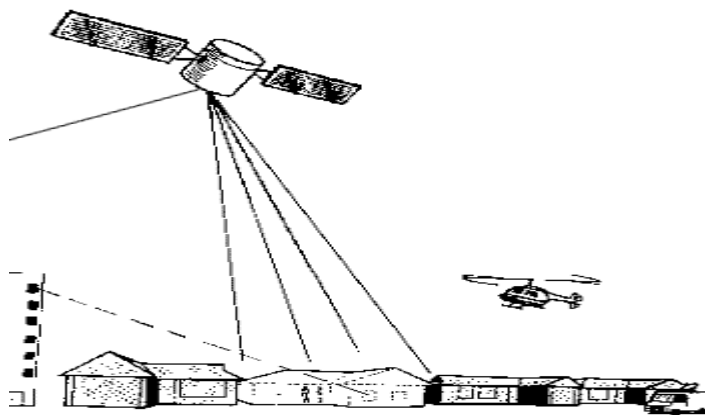
This effort would yield a technological revolution, in applications from computers to entertainment. It would give the United States a global competitive advantage while yielding solutions to specific domestic problems such as air traffic control and highway safety in increasingly crowded environments. It will revolutionize education. This effort will yield devices that may be applied to a number of activities and be sufficiently small as to be wearable in a car or at home.

3.EUROPA - TARGETED INDIVIDUALS

The human mind has never been a simple project. Because of its complexity and plasticity, it has yet not been completely understood. Under the dark ages of brain research, scientists have nevertheless learned how to stimulate and partially control the human brain's responses. At any time it has been done, it has caused pain and suffering for the owner of the brain: the human subject.

Backed up by the "best" scientists, sponsored by the military and the secret service, thousands of individuals have their lives destroyed in the quest of developing technologies that are not science fiction anymore.

The human brain, is seen as a computer where information can be downloaded and from where information can be uploaded. Cloning the individual's brain and nervous system is the only hope today's scientists have to understand the human brain and develop advanced artificial intelligence and synthetic telepathy, allowing people to communication by thought, not speech. The European and World countries governments, faced with this "challenge" are unable to protect their citizens against the greatest possible violations of their human rights. There are no excuses whatsoever for researchers to destroy people's and entire families lives. Under the secrecy of "national security", they violate human rights conventions and every universal human right a human being is born with, going deep into the very consciousness of the person that is affected.



Many human rights campaigners from around the world have spent years working on countless books, videos, websites, rallies and symposiums which highlight these matters. These include efforts by prominent persons like Dr Nick Begich, Dr Rauni Kilde (ex chief medical officer for Finland) and well known author Gloria Naylor. To date, all of it has been ignored by the criminally owned/controlled media. However, most importantly, there has been open condemnation of these methods by major political entities and I ask you to focus on these...

1. The United Nations - UNIDIR - (The UN Institute for Disarmament Research) officially recognised a range of weapons (both lethal and non-lethal), including the ones previously listed, and recommended that they ALL be banned as weapons of potential mass destruction. Naturally, the press releases and media guides that they issued on this matter were totally ignored by the mainstream media. This media treachery is the reason the public is unaware of the dangers.

2. The European Parliament - In January 1999, the European Parliament passed a resolution where it calls " for an international convention introducing a global ban on all development and deployment of weapons which might enable any form of manipulation of human beings. It is our conviction that this ban can not be implemented without the global pressure of the informed general public on the governments. Our major objective is to get across to the general public the real threat which these weapons represent for human rights and democracy and to apply pressure on the governments and parliaments around the world to enact legislature which would prohibit the use of these devices to both government and private organisations as well as individuals." (Plenary Sessions/ EuroParliament, 1999)

3. US Federal politician Dennis Kucinich - In October 2001, Congressman Dennis J. Kucinich introduced a bill to the House of Representatives which, it was hoped would be extremely important in the fight to expose and stop psycho-electronic mind control experimentation on involuntary, non-consensual citizens. The Bill was referred to the Committee on Science, and in addition to the Committee on Armed Services and International Relations. In the original bill a ban was sought on 'exotic weapons' including electronic, psychotronic or information weapons, chemtrails, particle beams, plasmas, electromagnetic radiation, extremely low frequency (ELF) or ultra low frequency (ULF) energy radiation, or mind control technologies. Despite the inclusion of a prohibition of the basing of weapons in space, and the use of weapons to destroy objects or damage objects in space, there is no mention in the revised bill of any of the aforementioned mind-invasive weaponry, nor of the use of satellite or radar or other energy based technology for deploying or developing technology designed for deployment against the minds of human beings. [the original Bill was called The Space Preservation Act, 2001 (HR 2977) it was reintroduced as The Space Preservation Act, 2002 (HR 3616)]. Kucinich's efforts mirrored similar attempts made some years earlier by ex astronaut, Sen. John Glenn.

4. US Federal politician Jim Guest - recently wrote to all members of the US legislature asking for help for the countless victims of electronic harassment/torture (agency black operations being secreted from congressional scrutiny thus allowing corrupt officers to frame/torture innocents). To date, nothing concrete has come of this approach.

5. French National Bioethics Committee - In January 1998, an annual public meeting of the French National Bioethics Committee was held in Paris. Its chairman, Jean-Pierre Changeux, a neuroscientist at the Institut Pasteur in Paris, told the meeting that "advances in cerebral imaging make the scope for invasion of privacy immense. Although the equipment needed is still highly specialized, it will become commonplace and capable of being used at a distance. That will open the way for abuses such as invasion of personal liberty, control of behaviour and brainwashing. These are far from being science-fiction concerns and constitute "a serious risk to society." ("Nature." Vol 391, 1998)

4.SATELLITE SPIES – THE SHOCKING TRUTH

<u>TECHNOLOGY</u>	<u>ACTUAL CRIMINAL USE</u>	<u>POTENTIAL GOOD USE</u>
<u>ECHELON SATELLITES</u> satellite/computer monitoring of <u>all</u> telecommunications worldwide)	To intercept conversations, emails etc. To steal ideas and harass targets (writers, whistleblowers etc)	To monitor and stop terrorists and other criminals
<u>AUDIO-VISUAL SATELLITES</u> (Allowing 24/7 surveillance of anyone, even <u>in</u> their homes)	To gather blackmail-friendly material; to oppress targets and other citizens; to feed results to media/political criminals	To monitor and stop terrorists and other criminals
<u>INTERACTIVE TRANSECTOR DEVICE</u> (Sat-based - Pat US #4893815 16-1-90 L. Rowan)	To spy on political targets etc by finding, locking onto and tracking those victims so as to terrorise/torture them	To monitor and stop terrorists and other criminals
<u>METHODS OF ALTERING CONSCIOUSNESS</u> (Sat-based - Pat US #5123899, 23/6/92 J. Gall + Pat US #5289438, 22/2/94 J. Gall)	To alter targets moods by stimulating the brain to exhibit certain rhythms (angry, sad, sleepy etc); EEG cloning/feedback	To help the emotionally distressed
<u>BRAIN WAVE ANALYSERS</u> (Remote neural monitoring & electronic brain linking, via sat - Pat US #6011991, 1/4/00 A. Mardirossian)	To read the minds of targets; to rob, rape, terrorise and oppress completely yet covertly. Experiments in mind control, AI & cloning are also carried out	To help interrogate criminals
<u>NEUROPHONES</u> (Sat-based - Pat US #3393279 16/7/68 P. Flanagan + Pat US #3647970 7/3/72 P. Flanagan)	To make the target hear voices via the laser/MW/R.wave direction of sound that's been converted to electrical impulse to go straight to the targets brain	To communicate with the deaf, stroke victims etc
NOTE: Alone, or in conjunction with subliminal and visual technologies, as well as role playing etc, these technologies can be used for trickery including apparent schizophrenic episodes, paranormal or "alien" encounters and much more.		

5.DIRECTED ENERGY PROFESSIONAL SOCIETY

These Directed Energy (DE) internships are concerned with the research, development and testing of high energy laser and high power microwave components, systems and effects at Federal laboratories and universities at sites around the country. Most of these positions are made possible by funding from the High Energy Laser Joint Technology Office.

Internship Qualifications

These paid summer internship positions are available for currently enrolled undergraduate and graduate students at U.S. colleges and universities. Positions are open to U.S. citizens only. The disciplines include but are not limited to these:

- science - physics, chemistry
- engineering - electrical, optical, chemical, mechanical, and materials
- mathematics and computer science

Position Descriptions

Generally, interns will work for the summer in a laboratory or university under the tutelage of full time researchers. Work may include experimental, theoretical, or computer modeling and simulation, depending on the position. Specific work assignments, hours and pay will vary.

Organizations

The organizations below are expected to offer these internships in 2012. Advertising for open positions will begin in December 2011.

- **711 Human Performance Wing - Texas**
- **Air Force Institute of Technology - Ohio**
- **Air Force Research Laboratory - Hawaii, New Mexico**
- **Army Research Laboratory- Maryland**
- **Naval Postgraduate School - California**
- **Naval Research Laboratory (satellite) - Washington, D.C., Florida**
- **US Army Space and Missile Defense Command - Alabama**

**INTERMITTENT VORTICITY, POWER SPECTRAL
SCALING AND DYNAMICAL MEASURES ON RESTING
BRAIN MAGNETIC FIELD FLUCTUATIONS**

6.A Pilot Study

**Arnold J. Mandell, Karen A. Selz, Tom Holroyd, Lindsay Rutter
and Richard Coppola**

**NIMH Core MEG Laboratory and Cielo Institute
Supported in part by the Fetzer-Franklin Trust, DARPA
(Microelectronics) and the Space and Naval Warfare Center**

The Eyes Closed, Resting Record

The time dynamics of global brain electromagnetic field activity, recorded in humans as continuous, eyes closed resting MEG (and EEG) records, are regarded by some as reflections of physiologically and psychologically relevant, emergent macroscopic behavior of nonlinearly coupled, cooperative brain systems (Basar et al., 1983; Bucolo et al., 2003; Chen et al., 2003; Friedrich et al., 1989; Haken, 2 1996; Mandell, 1983a). Others, more involved in neuronal current source localization studies of task or state-related magneto-encephalographic records (Cornwell et al., 2008; Fife et al., 2002; Garolera et al., 2007; Nolte et al., 2004) have treated the globally distributed, spontaneous neuronal current generated, brain magnetic field activity as "...high-ranked (leading eigenvalued) background activity... interfering magnetic fields generated from (not relevant) spontaneous brain activities...intrinsic brain noise..." (Sekihara et al., 1996; Sekihara et al., 2008; Sekihara et al., 2006). Covariance matrix-derived beamformers from several minutes of the eyes-closed resting record have been used in "prewhitening techniques", adding noise in order to get around linear dependency in the matrix if it is too low dimensional and to minimize interfering low dimensional intrinsic brain magnetic field noise (Sekihara et al., 2008; Zumer et al., 2007; Zumer et al., 2008).

Another view of spontaneous magnetic field fluctuations have been influenced by studies of spatial (neuroanatomical) brain localization using concomitant fMRI techniques. They have suggested the existence of spontaneous, regional, above baseline activity in the normal eyes closed, resting state. This activity is particularly pronounced in medial prefrontal, parietal and both posterior and anterior cingulate, and is suppressed during goal-directed behavior (Damoiseaux et al., 2006; Griecius et al., 2003; Gusnard & Raichle, 3 2001). Activity in this "network" has been labeled "default activation" by Raichle (Raichle ME et al., 2001). The many second time scale of fMRI imaging demonstrated density variations that were characteristic for the normal eyes closed, resting condition (Biswal et al., 1995). Importantly, the spontaneous activity in the resting state also appears to involve neural network activity across several time scales (Honey et al., 2007).

In two state, task-no task, experimental designs, the resting activity, "default activation," has been speculated to reflect spontaneous, task unrelated, images and thoughts (Greicius & Menon, 2004; Greicius et al., 2004; Raichle ME et al., 2001; Vincent et al., 2007). These transient mental events in the eyes closed, resting condition have also been called "daydreaming" (Singer, 1966), "task-unrelated-thoughts," TUTs (Giambra, 1989), "unrest at rest" (Buckner & Vincent, 2007), "wandering minds," and "stimulus independent thought", SITs (Gilbert et al., 2007). Psychologists that have studied inner life subjectively, William James (James, 1902) and Sigmund Freud (Freud, 1914/1955 among many others, have focused on these autonomously arising transient streams of free associations and imagery. James analogized them to the turbulent eddies of the hydrodynamic flow of consciousness which he believed these transients to be among the universal properties of the conscious human brain. Examinations of a subject's spontaneous internal activity as exteriorized by the psychoanalytic instruction, "...say everything that comes to your mind..." has been central to the practice of psychoanalysis for over a Century (Fenichel, 1945 #8190). It appears that the ostensibly resting "default brain activity" in the "default network" persists in monkeys through anesthesia-induced changes in states of consciousness (Vincent et al., 2007). This result is consistent with a several decade history of research using priming, evoked potentials and task recovery paradigms to demonstrate implicit, working memorial events that occur during even surgical anesthesia (Jordon et al., 2000). The implied relationship between 2-5 second epochs of MEG activation such as that seen below in Fig. 5 as intermittent helical vortices (we call them *strudels*) and TUT or SIT-like subjective phenomena must remain entirely speculative.

General Premise and Hypothesis

It is the underlying premise of this pilot study of intrinsic brain magnetic field fluctuations that they manifest signatory patterns in transformations and measures which can discriminate among global brain states. We examine this premise by partially isolating and qualitatively and quantitatively characterizing 12.5, 54, 180 or 240 seconds of eyes closed, resting spontaneous magnetic field activity in ten resting controls and ten medicated schizophrenic probands. From our previous 5 work in brain-related physiological systems (Mandell, 1979; Mandell, 1983b; Mandell, 1987; Mandell et al., 1982; Mandell & Selz, 1993), a more specific hypothesis is suggested:

Compared with controls, magnetic field fluctuations in schizophrenic patients will demonstrate relatively higher values for indices of emergent dynamical structure and relatively lower values for a variety of measures reflecting the dynamical entropy "used up" in their formation (Mandell & Selz, 1997c; Selz & Mandell, 1991; Selz et al., 1995; Smotherman et al., 1996).

A MEG Derived Data Series: Symmetric Sensor Difference Sequences, *ssds(i)*

Ten normal controls and ten age- and sex-matched schizophrenic proband subjects (see Subjects below) were studied in the National Institutes of Mental Health's Core MEG Laboratory in Bethesda, MD. A 275 channel, superconducting quantum interference device (SQUID radial gradiometer system from CTF Systems Inc. Port Coquitlam, BC, Canada (Anninos et al., 1986; Cohen, 1972; Rutter et al., 2009; Weinberg et al., 1984) was used in data collection (see **Magnetoencephalographic Data Collection** below).

6 Our approach to MEG-derived signals abrogates source orientation, localization and inverse problem tools such as leadfield matrices (Dale & Sereno, 1993; Hamalainen et al., 1993), adaptive synthetic aperture magnetometer, SAM, beamformer techniques, or projection onto Talairach MRI image reconstructed volumes (Dalal et al., 2008; Dalal et al., 2004). For these approaches to this data set, see Rutter et al (Rutter et al., 2009). In their study of spontaneous activity in the eyes closed, resting state, they found a statistically significant decrement in the amplitudes of MEG recorded posterior regional gamma (30-70Hz+) activity in schizophrenic patients compared with normal controls (Rutter et al., 2009). In that study as well as these, a high pass, 0.6 Hz, as well as 60, 120, 180 and 240 Hz notch filters were routinely applied to the individual sensor records before the computation of the sensor pair $ssds(i)$, (the difference between the two sensor). It is our presupposition that the "...spontaneous activity... all over the brain..." (Sekihara et al., 2008) reflects global and neurophysiologically meaningful patterns of complex neuronal activity-generated magnetic field fluctuations in interaction with MEG SQUID sensors (Barone A & G., 1982; Braiman & Wiesenfeld, 1994). A magnetic flux applied to the SQUID magnetometer, gives rise to a circulating current, which in turn modulates the inductance of the autonomously oscillatory Josephson junctions (Landberg et al., 1966; Levi et al., 1977). The great sensitivity of the SQUID devices permits measuring changes in magnetic field associated with even a single flux quantum.

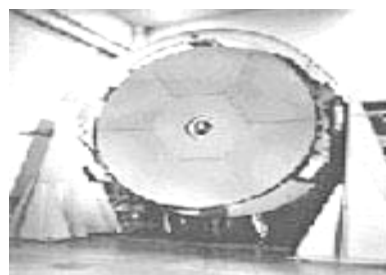
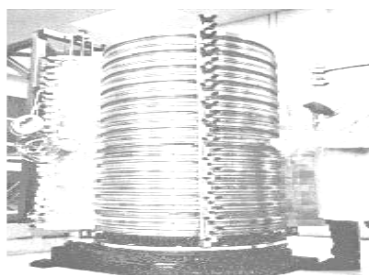
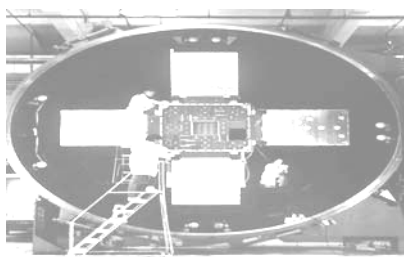
7 If a constant biasing current is maintained in the SQUID device, it is the voltage which is modulated by changes in phase at junctions. Phase at Josephson junctions is sensitive to the quanta of magnetic flux. We dismiss a common generalization of many MEG practitioners that most or all local polarities of the intrinsic magnetic field noise "cancel out." In the context of the somewhat analogous *magnetic dynamo problem*: "...given a flow in a conducting fluid, will a small seed magnetic field amplify exponentially with time..." (Finn & Ott, 1988)--we show below that $ssds(i)$ s do-- it was argued that the magnetic flux loops *nonuniformly* stretch and fold into themselves manifesting only *partial* cancellation and diffuse fine scale oscillations, in a process which can be quantified by a fractional *cancellation exponent* (Ott et al., 1992) and measures made on temporal-spatial intermittency.

In addition, if some currents run parallel to magnetic fields, which is expected to be the case with poorly localized, multiple neocortical neuronal sources, the magnetic field lines may follow a variety of dynamical shapes in which the magnetic pressure gradient is balanced by the magnetic tension. For example, there may not be any Lorentz force, $J \times B = 0$, leading to a measurable field configuration without any net electrical current at all. We thus don't infer a particular neuronal current source (or event) for the data series. Characterizing the fluctuations allows the elucidation of patterns in the brain's global magnetic field flux dynamics without reference to anatomical location (Clarke, 1994).

8 example, we find a common dynamical pattern often involves intermittently appearing, multiple time scale helical vortices. We call them unwindable *strudels* lest they lead to the brain being called a critically loaded sand pile that spawns *avalanches* (Beggs & Plenz, 2005; Levina et al., 2007)). In comparison with the several second time resolution of fMRI, the MEG's superior temporal resolution, ~ 1 ms, combined with its "underdetermined" weaknesses with respect to specific brain localization when used alone (Hamalainen et al., 1993; Im et al., 2005; Lee et al., 2007; Sarvas, 1987; Uutela et al., 1998), suited our goal of characterizing magnetic field (rather than inferred neuronal) properties of what has been called intrinsic physiological brain noise (Nagarajan et al., 2006; Sekihara et al., 1997; Sekihara et al., 2005). The use of *ssds(i)* exploits the hemispheric symmetry of the human brain (Geschwind, 1970) and serves several purposes: (1) It imposes a natural gauge (distance serves as a traveling, local normalization procedure; (3) The *ssdi(i)* reduces the penetrance of electromagnetic field correlates of blink, cough, and movement as well as the cardiac and respiratory artifacts that both symmetric sensors generally share; (4) Using *ssds(i)* instead of the raw MEG time series tends to cancel the symmetrically shared generic MEG (and EEG) Δ , Θ , α , β , and γ modes, as well as other patterns of bihemispheric covariance; (5) Advantageous from the magnetic field point of view is the fact that using *ssds(i)* makes issues of 9 neuronal current source location moot; ; the spatial sensitivity profile of the *ssds(i)* considered as a virtual sensor typically covers a large volume of the brain. The techniques similar to that used here of paired sensor difference series, *ssds(i)*, have been used to reduce or remove the mean and double or more the higher moments in analyses of nonstationary neural membrane conductance noise

(Conti et al., 1980; DeFelice, 1977; Sigworth, 1981).

NAVAL - research laboratory experiments (NRL) Florida



DARPA FUTURE - HISTORICAL

Behavior	PROTECTING HUMAN ASSETS	Bio-Silico Interface
Brain technology	ENHANCED HUMAN PERFORMANCE	Energy transduction
Cell & Tissue Engineering	ENHANCED SYSTEM PERFORMAMCE	Geonomisc & Proteomics

7. Pentagon report investigated lasers that put voices in your head

February 18, 2008

by Lisa Zyga



A recently unclassified report from the Pentagon from 1998 has revealed an investigation into using laser beams for a few intriguing potential methods of non-lethal torture. Some of the applications the report investigated include putting voices in people's heads, using lasers to trigger uncontrolled neuron firing, and slowly heating the human body to a point of feverish confusion - all from hundreds of meters away.

A US citizen requested access to the document, entitled "Bioeffects of Selected Non-Lethal Weapons," under the Freedom of Information Act a little over a year ago. There is no evidence that any of the technologies mentioned in the 10-year-old report have been developed since the time it was written. The report explained several types of non-lethal laser applications, including microwave hearing, disrupted neural control, and microwave heating. For the first type, short pulses of RF energy (2450 MHz) can generate a pressure wave in solids and liquids. When exposed to pulsed RF energy, humans experience the immediate sensation of "microwave hearing" - sounds that may include buzzing, ticking, hissing, or knocking that originate within the head. Studies with guinea pigs and cats suggest that the mechanism responsible for the phenomenon is thermoelastic expansion. Exposure to the RF pulses doesn't cause any permanent effects, as all effects cease almost immediately after exposure ceases.

As the report explains, tuning microwave hearing could enable communicating with individuals from a distance of up to several hundred meters. The report explains:

The phenomenon is tunable in that the characteristic sounds and intensities of those sounds depend on the characteristics of the RF energy as delivered... Because the frequency of the sound heard is dependent on the pulse characteristics of the RF energy, it seems possible that this technology could be developed to the point where words could be transmitted to be heard like the spoken word, except that it could only be heard within a person's head.



In one experiment, communication of the words from one to ten using 'speech modulated' microwave energy was successfully demonstrated. Microphones next to the person experiencing the voice could not pick up these sounds. Additional development of this would open up a wide range of possibilities." The report predicts that communicating at longer distances would be possible with larger equipment, while shorter range signals could be generated with portable equipment. Putting voices in people's heads could cause what the report calls "psychologically devastating" effects. The technology might even allow for communicating with an individual hostage surrounded by captors, although this would require "extreme directional specificity. With another weapon, electromagnetic pulses could be used to disrupt the brain's functioning, although this technology was still in the theoretical stages at the time.

Under normal conditions, all brain structures function with specific rhythmic activity depending on incoming sensory information. Sometimes, the brain synchronizes neuronal activity in order to focus on a specific task, but the degree of neuronal synchronization is highly controlled. However, under certain conditions (such as physical stress or heat stroke), more areas of the brain can fire in a highly synchronized manner, and may begin firing uncontrollably. The report describes a method for replicating this highly synchronized neuron firing across distances of several hundred meters. High-voltage (100 kV/m) electromagnetic pulses lasting for one nanosecond could trigger neurons to fire, disrupting the body's controlled firing activity. Short-term effects may include loss of consciousness, muscle spasms, muscle weakness, and seizures lasting for a couple minutes. These high-voltage pulsed sources, which would require an estimated frequency of 15 Hz, exist today.

Another form of non-lethal torture described in the report is microwave heating. By raising the temperature of the body to 41°C (105.8°F), humans can experience sensations such as memory loss and disorientation, and exhibit reduced aggression. According to the report, humans can survive temperatures up to 42°C (107.6°F), at which time prolonged exposure can result in permanent brain damage or death. The microwave heating technique was tested on a Rhesus monkey, where a 225 MHz beam caused an increase in the animal's body temperature.

Depending on the dosage level, the temperature increase occurred within a time of 15 to 30 minutes. After the beam was removed, the animal's body temperature decreased back to normal.

The report suggests the technique could be useful for controlling crowds or in negotiations. While the investigations reveal intriguing techniques for non-lethal torture, the report does not mention plans for carrying out specific experiments or studies in the future.

Vaccine Implants

Implants are now smaller than a hair's width and are injected with vaccine and flu shots. Millions have had this done unknowingly. These 'biochips' circulate in the bloodstream and lodge in the brain, enabling the victims to hear 'voices' via the implant.

Fluoride and selenium enable people to 'hear voices'. ELF waves create disturbances in the biological processes of the body and these can be activated in the population once the diseases are introduced into the body from the chemtrails. Fluoride disables the willpower section of the brain, impairing the left occipital lobe. Some chemtrails have been analyzed and shown to be creating cleavages in spacial perceptions, blocking the interaction of various amino-acids that relate to higher-consciousness and to increase dopamine in the brain producing a listless, spaced-out state of lower reactive mind.

PENTAGON - Flu Vaccine Use to Modify Human Behavior

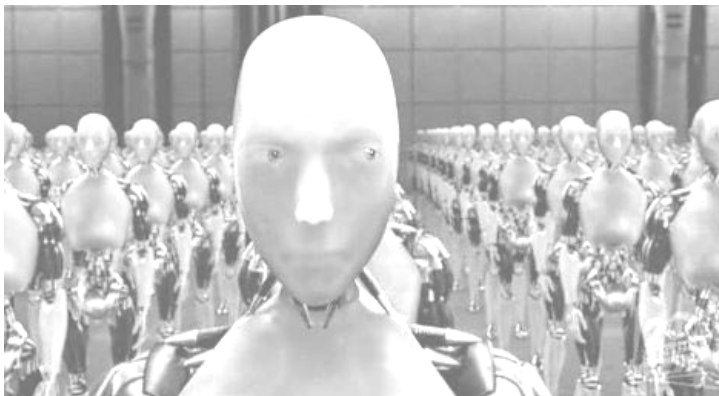
The Pentagon currently wants to "realistically replicate human behavior and frailties" to improve cyberwarfare tactics. The human brain is one of the most complex organs known to man. To successfully model human populations it is vital that the computer models can successfully account for how an individual's brain would respond in specific situations in a sensory environment.

8.DARPA - nanotechnology

1.Military Defense Robotics

Machines Will Rise: Becoming Self Aware

The Department of Defense is building robots for **the Pentagon**. It has been seen as a move that could advance AI research and move the Defense robotics industry into the New Age. As viewed in our Exoskeleton section one of the leading manufactures in the exoskeleton arena is a company called **Cyberdyne Technologies**. Industry experts are already predicting that when the soldier steps out of this unit the exoskeleton will be able to operate autonomously.



2.NANO SOLDIERS

A New Industrial Revolution

In January 2000, U.S. President Bill Clinton requested a \$227-million increase in the government's investment in nanotechnology research and development, which included a major initiative called **the National Nanotechnology Initiative (NNI)**. This initiative nearly doubled America 's 2000 budget investment in nanotechnology, bringing the total invested in nanotechnology to \$497 million for the 2001 national budget. In a written statement, White House officials said that "nanotechnology is the new frontier and its potential impact is compelling." About 70 percent of the new nanotechnology funding will go to university research efforts, which will help meet the demand for workers with nanoscale science and engineering skills. The initiative will also fund the projects of several governmental agencies, including **the National Science Foundation , the Department of Defense , the Department of Energy , the National Institutes of Health , NASA and the National Institute of Standards and Technology**. Much of the research will take more than 20 years to complete, but the process itself could touch off a new industrial revolution. Nanotechnology is likely to change the way almost everything, including medicine, computers and cars, are designed and constructed. Nanotechnology is anywhere from five to 15 years in the future, and we won't see dramatic changes in our world right away.

A Short History of Nanotechnology

1959

Feynman gives after-dinner talk describing molecular machines building with atomic precision

1974

Taniguchi uses term "nano-technology" in paper on ion-sputter machining

1977

Drexler originates molecular nanotechnology concepts at MIT

1981

First technical paper on molecular engineering to build with atomic precision STM invented

1985

Buckyball discovered

1986

First book published

AFM invented

First organization formed

1987

First protein engineered

First university symposium

1988

First university course

1989

IBM logo spelled in individual atoms

First national conference

1990

First nanotechnology journal

Japan's STA begins funding nanotech projects

1991

Japan's MITI announces bottom-up "atom factory"

IBM endorses bottom-up path

Japan's MITI commits \$200 million

Carbon nanotube discovered

1992

First textbook published
First Congressional testimony

1993

First Feynman Prize in Nanotechnology awarded for modeling a hydrogen abstraction tool useful in nanotechnology
First coverage of nanotech from White House
"Engines of Creation" book given to Rice administration, stimulating first university nanotech center

1994

Nanosystems textbook used in first university course
US Science Advisor advocates nanotechnology

1995

First think tank report
First industry analysis of military applications
Feynman Prize in Nanotechnology awarded for synthesis of complex three-dimensional structures with DNA molecules

1996

\$250,000 Feynman Grand Prize announced
First European conference
NASA begins work in computational nanotech
First nanobio conference

1997

First company founded: Zyvex
First design of nanorobotic system
Feynman Prize in Nanotechnology awarded for work in computational nanotechnology and using scanning probe microscopes to manipulate molecules

1998

First NSF forum, held in conjunction with Foresight Conference
First DNA-based nanomechanical device
Feynman Prize in Nanotechnology awarded for computational modeling of molecular tools for atomically-precise chemical reactions and for building molecular structures through the use of self-organization

1999

First Nanomedicine book published
First safety guidelines
Congressional hearings on proposed National Nanotechnology Initiative
Feynman Prize in Nanotechnology awarded for development of carbon nanotubes for potential computing device applications and for modeling the operation of molecular machine designs

2000

President Clinton announces U.S. National Nanotechnology Initiative
First state research initiative: \$100 million in California
Feynman Prize in Nanotechnology awarded for computational materials science for nanostructures and for building a molecular switch

2001

First report on nanotech industry
U.S. announces first center for military applications
Feynman Prize in Nanotechnology awarded for theory of nanometer-scale electronic devices and for synthesis and characterization of carbon nanotubes and nanowires

2002

First nanotech industry conference
Regional nanotech efforts multiply
Feynman Prize in Nanotechnology awarded for using DNA to enable the self-assembly of new structures and for advancing our ability to model molecular machine systems

2003

Congressional hearings on societal implications
Call for balancing NNI research portfolio
Drexler/Smalley debate is published in *Chemical & Engineering News*
Feynman Prize in Nanotechnology awarded for modeling the molecular and electronic structures of new materials and for integrating single molecule biological motors with nano-scale silicon devices

2004

First policy conference on advanced nanotech
First center for nanomechanical systems
Feynman Prize in Nanotechnology awarded for designing stable protein structures and for constructing a novel enzyme with an altered function

2005

At Nanoethics meeting, Roco announces nanomachine/nanosystem project count has reached 300
Feynman Prize in Nanotechnology awarded for designing a wide variety of single molecular functional nanomachines and for synthesizing macromolecules of intermediate sizes with designed shapes and functions

2006

National Academies nanotechnology report calls for experimentation toward molecular manufacturing
Feynman Prize in Nanotechnology awarded for work in molecular computation and algorithmic self-assembly, and for producing complex two-dimensional arrays of DNA nanostructures

2007

Feynman Prize in Nanotechnology awarded for construction of molecular machine systems that function in the realm of Brownian motion, and molecular machines based upon two-state mechanically interlocked compounds

2008

Technology Roadmap for Productive Nanosystems released
Protein catalysts designed for non-natural chemical reactions
Feynman Prize in Nanotechnology awarded for work in molecular electronics and the synthesis of molecular motors and nanocars, and for theoretical contributions to nanofabrication and sensing

2009

An improved walking DNA nanorobot
Structural DNA nanotechnology arrays devices to capture molecular building blocks Design 'from scratch' of a small protein that performed the function performed by natural globin proteins Organizing functional components on addressable DNA scaffolds Feynman Prize in Nanotechnology awarded for experimental demonstrations of mechanosynthesis using AFM to manipulate single atoms, and for computational analysis of molecular tools to build complex molecular structures

2010

DNA-based 'robotic' assembly begins
Feynman Prize in Nanotechnology awarded for work in single atom manipulations and atomic switches, and for development of quantum mechanical methods for theoretical predictions of molecules and solids

2011

First programmable nanowire circuits for nanoprocessors
DNA molecular robots learn to walk in any direction along a branched track
Mechanical manipulation of silicon dimers on a silicon surface

9. Military Nanotechnology

Dangers, Preventive Arms Control, and Challenges to the International System

Jürgen Altmann

Experimentelle Physik III

Universität Dortmund Germany Conference

Understanding Complex Systems

University of Illinois,

Champaign-Urbana IL, USA 15-18May-2006

NSTC, USA, 1999

1. Nanotechnology(NT)

Analysis and engineering of systems at nanometres (10⁻⁹m) size range: between about 0,1nm(atom) and several 100nm(larger molecule).

2. Molecular Nanotechnology

Mechanosynthesis: molecular machine takes atoms/molecules from surroundings, fits mechanically together and lets bonds work

Concepts Associated with Molecular NT

- Mobile nano-robots
- (Super-)human artificial intelligence
- Automatic research, development, construction
- Modified/improved organs, bodies; cyborgs
- Sense/control brain contents, download to software
- Outer space: mining of asteroids, colonies

3. (European concept different)

Promises of Nanotechnology/Converging Technologies

extremely small, extremely powerful computers, linked everywhere
clean production

clean energy

lighter, more efficient vehicles

longer-duration materials

prosthetic implants, targeted drug delivery, tissue regeneration

Risks/Ethical Problems of Nanotechnology/Converging Technologies

health, environment -at present mainly nanoparticles

fewer jobs

'nanodivide'

privacy

genetic manipulation of plants, animals, humans

implants, body manipulation

Efforts for NT

Europe

Japan

USA

Rest of world

-each about \$ 800 million government funding per year

Military Nanotechnology:
Potential Applications and Preventive Arms Control

Jürgen Altmann

London/New York: Routledge, 2006

With revolutionary changes in nanotechnology (NT) now on the horizon, many countries have started major research and development (R&D) programmes, which are mainly civilian. Often overlooked are military R&D programmes – in particular those of the US government. This is the first systematic and comprehensive presentation of the potential military applications of NT.

In ten to twenty years, these applications may include extremely small computers, robots, missiles, satellites, launchers and sensors. They may also provide lighter and stronger materials for vehicles and weapons, implants in soldiers' bodies, metal-free firearms, autonomous fighting systems, and smaller chemical and biological weapons. These potential uses raise strong concerns. This assessment is made from a viewpoint of international security, considering the new criteria of dangers for arms control and the international law of warfare, dangers for stability through potential new arms races and proliferation, and dangers for humans and society. Some military applications, such as computers, will be so close to civilian uses that limits are impractical. Others, such as sensors for biological-warfare agents, may contribute to stronger protection against terrorist attacks and better verification of compliance with arms-control treaties. For preventive limitation of these new technologies, specific approaches are proposed that balance positive civilian uses and take into account verification of compliance, with a view to international peace and security, not national military strength. This book will be of great interest to scholars of military technology, non-lethal weapons, disarmament and security studies in general.



10.NATO

179 STCMT 05 E - THE SECURITY IMPLICATIONS OF NANOTECHNOLOGY

Lothar IBRÜGGER (Germany)

III. MILITARY USES OF NANOTECHNOLOGY

13. While most of the debate over NT focuses on its prospects for informatics and medicine, potential military applications of NT lack proper public attention, despite the fact that NT is becoming increasingly important for military strategists. The funding of military NT makes up a substantial share of total NT funding.

14. The United States is the leader in military R&D of NT. Indeed, the US military has been engaged in this field since the 1980s, focusing on ultra-submicron electronics and scanning-probe microscopy. In 1996, NT was established as one of six strategic research areas for defence. Accordingly, between 25 and 30% of the US National Nanotechnology Initiative funding has gone to the US Department of Defence (DoD) since NNI's establishment in 2000. In 2005, the DoD is due to receive \$276 million for NT, while the Department of Homeland Security will receive an extra \$1 million for this purpose, accounting for approximately 28% of the total US NT budget. The US military R&D is focusing on the development of miniature sensors, high-speed processing, unmanned combat vehicles, improved virtual-reality training, and enhancement of human performance.

15. The UK Ministry of Defence (MOD) is also engaged in military R&D of NT, and allocates approximately £1.5 million per annum to this purpose. However, the MOD considers NT development in the United Kingdom as being driven by commercial, rather than military imperatives. NT related expenditure accounts for 0.35% of the annual UK defence scientific research budget and is substantially smaller than that of the Department of Trade and Industry. Sweden has invested €11 million over 5 years in military NT R&D. The European Union had budgeted €65 million in 2004-2006 to enhance the European industrial potential in the field of security research. Even though this does not specifically mention NT, some of the areas might contain NT implications.

16. Most of military NT is still in R&D level. According to Dr. Jürgen Altmann, one of the most prominent researchers of military NT, it will take between 5 and 20 years or more for the applications of this research to arrive. One can expect that NT-based soldier-worn systems will be introduced in the mid-term future. In 2002, the Institute for Soldier Nanotechnology (ISN) was created at the Massachusetts Institute of Technology (MIT), with a five-year grant of \$50 million from the US Army. The goal of this research centre is to greatly enhance the protection and survival of the infantry soldier, using NT to create a bulletproof battle suit. US army planners are hoping to lighten the load that soldiers carry into battle. These systems could also monitor the state of health of the wearer, improve stamina and reaction, ease or even heal injuries, improve communication abilities, and increase soldiers' protection against biological or chemical weapons.

17. Potentially, NT could dramatically improve warfare technology. Lighter, stronger, heat resistant nanomaterials could be used in producing all kinds of weapons, making military transportation faster, strengthening armour and saving energy. Qualities of nanomaterials can be used for better camouflage.

18. A significant breakthrough in electronics, encouraged by NT, could result in the creation of smaller but very powerful computers, very small sensors and other devices that could be used by the military in a number of ways. Information could be stored and analysed more efficiently, intelligence and surveillance capabilities could be increased considerably by using nanosensors, precision of projectiles could reach extreme accuracy, communication systems could become much more sophisticated, as well as virtual reality systems for training. **Tiny sensors or even nanocomputers could be embedded in various military items, munitions, projectiles or uniforms, thus making them "smart". Some more futuristic visions even foresee development of autonomous fighting robots and military use of artificial intelligence, enabled by the development of NT.**

19. It is debatable whether NT could bring significant changes to nuclear weapons, as the laws of physics would still require a critical mass of uranium or plutonium. NT, however, might be used to improve arming or triggering systems of nuclear weapons. On the other hand, Dr. André Gsponer, Director of the Geneva-based Independent Scientific Research Institute, argues that NT can actually contribute to miniaturisation and safety of nuclear bombs, by offering heat- and radiation- resistant materials. Furthermore, NT might be used to create the fourth-generation nuclear weapon, i.e. a low-yield "clean" fusion-fuelled nuclear bomb, which would contain no, or very little, fissionable material. These nukes could potentially be used in earth-penetrating missiles.

20. The potential for NT innovations in chemical and biological weapons is particularly disquieting, as NT can considerably enhance the delivery mechanisms of agents or toxic substances. The ability of nanoparticles to penetrate the human body and its cells could make biological and chemical warfare much more feasible, easier to manage and to direct against specific groups or individuals. Dr. Sean Howard, in his work on NT security implications, has even called the threat of chemical and biological warfare a "real nano goo".

21. On the other hand, NT offers tools to effectively and profoundly strengthen homeland security policies, aimed at fighting the proliferation of biological and chemical weapons. Sensitive, selective and inexpensive NT-based sensors and materials could detect and bind components of chemical, biological or radiological weapons on the atomic or molecular level, thanks to the large surface/volume ratio of nanoparticles or of nanoporous material (JA). This is very important, as some agents can be lethal even in minuscule quantities. Chemical and biological defence systems with nanosensors could be placed in public places, such as schools or government buildings, public transportation systems, military assets, and border-crossing sites. Finally, nanomaterials could also be used to decontaminate places or individuals affected by chemical or biological weapons.

11. Nanotechnology in Europe

"Nanoscience and nanotechnologies: an action plan for Europe 2005-2009".

This plan highlights the following nanotechnology areas:

- _ nanoelectronics, including nanomanufacturing and nanoinstrumentation
- _ nanobiotechnology and nanomedicine, including diagnostics, targeted drug delivery and regenerative medicine
- _ nanomaterials, nanoparticle technology
- _ health and environmental risks of nanotechnology

Germany: 320 MEuro/yr on nano in 2004

Nanotechnology in Germany is focused on nanoelectronics (46 MEuro/yr), nanomaterials (38), nano-optics (26), microsystems (10), ICT (3), nanobio (3) and manufacturing (2). Nine nanotechnology competence centers have been founded: Nanomaterials (Karlsruhe), Ultraprecision surface engineering (Braunschweig) and nano coatings (Dresden), Nanooptics (Berlin), Nanobiotechnology (Munich and Kaiserslautern), Nanochemistry (Saarbrücken), Hanse Nanotec (Hamburg); CeNtech (Münster)

UK: 130 MEuro/yr on nano in 2004

After the National Initiative on Nanotechnology (NION) and LINK nanotechnology program (LNP), both ended in 2002, the UK launched in 2003 the Micro and Nanotechnology Initiative (MNT) to create a network of micro and nanotechnology facilities. At present the UK has 1500 nanotechnology workers. Well recognized nanotechnology centers are at the universities of Oxford, Cambridge, Newcastle, Durham and Glasgow. A special nanomaterials production facility is present at Farnborough, run by QinetiQ. Inex, innovation in nanotechnology exploitation, offers a one-stop-shop facility for micro- and nanosystems including production facilities.

France: 250 MEuro/yr on nano in 2004

The French research structure for nanotechnology is based around a group of five centers of excellence. This network covers the facilities at CEA-LETI in Grenoble (centered on Minatec, which brings together the CEA, the CNRS, the Institut National Polytechnique and the Université Joseph Fourier); the Laboratoire d'Analyses et d'Architectures des Systèmes (LAAS) in Toulouse; the Laboratoire de Photonique et de Nanostructures (LPN) in Marcoussis; the Institut d'Electronique Fondamentale in Orsay (IEF) (centered on Minerve) and the Institut d'Electronique, de Microelectronique et de Nanotechnologies (IEMN) in Lille. Priorities are:

- _ micro & nanoelectronics
- _ opto-electronics
- _ microsystems and assembly
- _ biotechnology and instrumentation

Netherlands

Nanotechnology is considered crucial for the high tech industry in the Netherlands, not only for the multinationals such as Philips, ASML, ASMI, DSM, AKZO-Nobel but also for a large number of small and medium sized companies. Three programs are now ongoing.

NanoNed

NanoNed, is an initiative of eight knowledge institutes and Philips. It clusters the nanotechnology and enabling technology strengths of the Dutch industrial and scientific infrastructure. The total budget for this NanoNed program amounts to 235 MEuro (4 years). The program has so called flagship projects on:

- _ advanced nanoprobng, nano-instrumentation
- _ chemistry and physics of individual molecules
- _ bionanosystems
- _ bottom-up nanoelectronics, nanoelectronic materials
- _ nanofabrication, nanofluidics
- _ nanophotonics, nanospintronics

MicroNed

The MicroNed program integrates Netherlands R&D on microsystems.

The budget amounts to 54 MEuro (4 years). It has the following clusters:

- _ micro invasive devices; micro life, lab-on-chip
- _ distributed sensor and actuator systems; autonomous sensors for harsh environments
- _ smart microchannel technology; modeling and design of microsystems
- _ microsatellite
- _ microfactory

The Holst center was founded in 2005 by IMEC (B) and TNO (NL) in order to valorize nano- and microsystems technology into innovative products. It has two technology programs:

- _ system in a package: wireless, autonomous sensors
- _ system in a foil: flexible electronics in a foil for lighting, sensors, tags and energy

The center has received a 50 MEuro grant from the Ministry of Economic Affairs. It is an open innovation center and industrial partners can sign in and participate in the technology programs.

Technology radars

One way of ordering and structuring this nanolandscape is to plot **technology radars**. Technology radars are radial plots with the radius as timeline, usually 15 or 20 years, towards market readiness. The radar circle can be divided into three or four segments covering the following application domains:

- _ ict, information and communication
- _ energy or power
- _ bio and life science
- _ materials and manufacturing

In this chapter nanotechnology radars are being proposed for eight application domains in both the military and civil world:

- _ **human centric: soldier, first responder, medical, sport**
- _ **vehicles: land vehicles, automotive**
- _ **marine: naval, maritime**
- _ **aerospace: missiles, fighters, aero planes**
- _ **space: satellites**
- _ **weapons and law enforcement**
- _ **logistics**
- _ **security and surveillance**

12.MILITARY SPACE PROGRAMS

MILITARY SPACE PROGRAM

- USA (FAS space military System)
- EU (GMES space military System)
- RUSSIA (POLYUS space military System)

SATELLITE NAVIGATION

- USA (GPS satellite navigation)
- EU (GALILEO satellite navigation)
- RUSSIA (GLONASS satellite navigation)

The Nautilus is another space- faring craft, a secret military spacecraft which operates by magnetic pulsing. It operates out of the unacknowledged new headquarters of the **U.S. Space Command**, deep under a mountain in Utah. **It makes twice-a-week trips up to the secret military-intelligence space station, which has been in deep space for the past thirty years, and manned by U.S. and USSR (now CIS) military astronauts.**

In 1988 previous models of spacefaring military vehicles were superseded by the "Nautilus", a spacecraft with a rounded delta shape built jointly by special projects divisions of Europe's Airbus Industrie and U.S.'s Boeing Corporation. Nautilus has a propulsion system which utilizes magnetic pulsing. Nautilus-type craft make twice-weekly trips up into space and back, to service the secret international space station. The Nautilus is based in Utah. The "Dream Chaser" is a planned manned suborbital and orbital spacecraft being developed by Space-Dev, a wholly owned subsidiary of Sierra Nevada Corporation. It is a spaceplane based on previous NASA & Soviet spaceplane work.

1.Tactical High Energy Laser- THEL

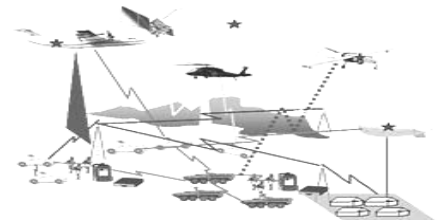
The cooperative **Tactical High Energy Laser (THEL)** Demonstrator ACTD was initiated by a memorandum of agreement between the United States and the Government of Israel on 18 July 1996. The THEL is a high- energy laser weapon system that uses proven laser beam generation technologies, proven beam- pointing technologies, and existing sensors and communication networks to provide a new active defense capability in counterair missions. The THEL can provide an innovative solution not offered by other systems or technologies for the acquisition and close-in engagement problems associated with short- to medium-range threats, thereby significantly enhancing coverage of combat forces and theater-level assets. The THEL low-cost per kill (about \$3,000 per kill) will also provide a cost-effective defense against low-cost air threats. **It features up to 60 shots without reloading and a P(k) near 1 at ranges of some 5 km.** A joint U.S.-Israeli program was initiated to develop a THEL demonstrator using deuterium fluoride chemical laser technologies. **THEL uses a Deuterium-Fluoride (DF) laser.** NF₃ and C₂H₄ are first reacted in multiple, side-by-side, high-pressure combustion chambers using an oxidizer (NF₃) rich mixture that generates free F atoms. After ignition the combustion-generated F atoms, mixed with combustion by-products and a He diluent, flow into the laser cavity. A mixture of He and deuterium is also injected into the laser cavity, and DF is generated in an excited state as deuterium reacts with the free F atoms. **The laser cavity is now ready to produce a laser beam.**



BA 330 Nautilus modul

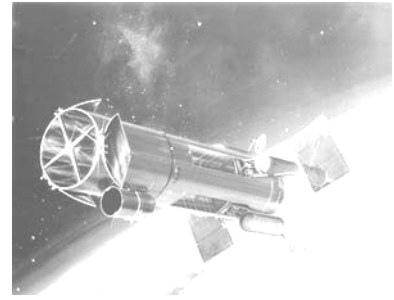
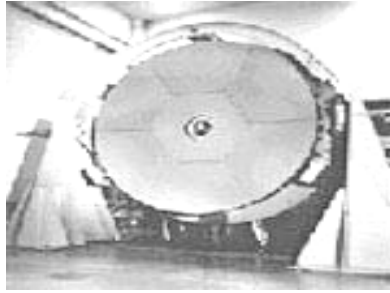


X-37A - Boeing/NASA



Sierra Nevada Corporation

2.Alpha High energy laser - AHEL



Alpha High energy laser Advanced Mirror Program Satellite - TRW

Combination lasers: x-ray laser, infra-red laser, chemical joda laser, laser neutral beams, laser electrons, holographic laser.

The beam is formed by a combination of sound and ultrasound waves which causes that a person targeted by this beam hears the sound inside of his head. One of them is the electromagnetic energy.

Human Bioelectric Impulses(Signals) Modulation/Monitoring

Classified US Department of Defense advanced operative tactical weapon, based on human epithalamus and metathalamus specifically epithalamus biomagnetic resonance and metathalamus biomagnetic resonance.

Execution of remote targets (target classification:bioobject) complete by the following steps:

1. Epithalamus/Metathalamus biomagnetic field (resonance) of remote target must be projected to remote computerized device-target systems designed to read and modulate bioelectrical impulses.

2. Biomagnetic potentials projected on epithalamus/metathalamus biomagnetic field (resonance) of remote target in its turn reflect on epithalamus it self and brain cortex .This allows to perform simultaneous no-contact bioelectric monitoring (surveillance) of remote target by reading biomagnetic potentials projected to epithalamus biomagnetic field.



Satellite Military communication GPS III

Satellite Military communication GPS-USA

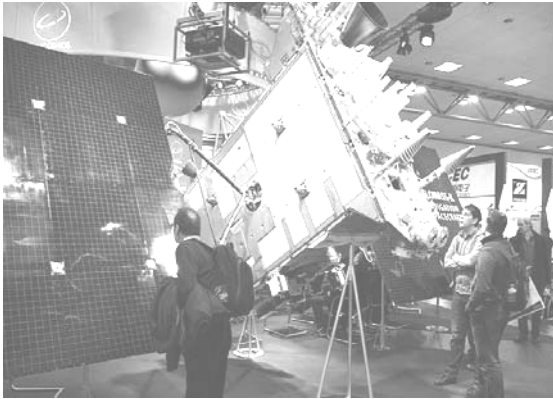
Successful launch campaign and modernization work under way for Global Positioning System

With successful launches of replenishment satellites, a new contract to modernize existing spacecraft and an architecture study for the next-generation satellite system, Space Systems is keeping pace with the Air Force's timetable to modernize and improve its GPS constellation.

The sixth straight successful **GPS IIR** satellite was launched in January and is operational. The IIR satellites have increased the GPS constellation's accuracy and are consistently within the top 10 performers in the constellation. Fourteen more IIR spacecraft have been delivered by Space Systems to the U.S. Air Force Space and Missile Systems Center for future launches including another planned this year. The Global Positioning System allows any user equipped with a GPS receiver to determine velocity and worldwide position within a few meters. Although originally designed as a guidance and navigational tool for the military, GPS has proven beneficial in the commercial and civil markets for transportation, surveying and rescue operations. In late 2000, Space Systems was awarded a contract to modernize up to 12 of the 14 GPS satellites currently in storage. The satellites will be modified to incorporate two new military signals and a second civil signal, thus providing military and civilian users of the navigation system with expanded capabilities much sooner than previously envisioned.

This modification represents the first significant upgrade to the navigation signal since the inception of GPS. Also in late 2000, Space Systems was awarded one of two industry contracts for a 12-month System Architecture and Requirements Definition study for the next-generation Global Positioning System, **GPS III**.

GLONASS Navigation - RUSSIA



GLONASS-K satellite

GLONASS-K is a substantial improvement of the previous generation: it is the first unpressurised GLONASS satellite with a much reduced mass (750 kg versus 1,450 kg of GLONASS-M). It has an operational lifetime of 10 years, compared to the 7-year lifetime of the second generation GLONASS-M. It will transmit more navigation signals to improve the system's accuracy, including new CDMA signals in the L3 and L5 bands which will use modulation similar to modernized GPS, Galileo and Compass.

The new satellite's advanced equipment—made solely from Russian components—will allow the doubling of GLONASS' accuracy. As with the previous satellites, these are 3-axis stabilized, nadir pointing with dual solar arrays. The first GLONASS-K satellite was successfully launched on 26 February 2011.

Ground control

The ground control segment of GLONASS is entirely located within former Soviet Union territory. The Ground Control Center and Time Standards is located in Moscow and the telemetry and tracking stations are in Saint Petersburg, Ternopol, Eniseisk, and Komsomolsk-na-Amure.

Receivers

Septentrio, Topcon, JAVAD, Magellan Navigation, Novatel, Leica Geosystems and Trimble Inc produce GNSS receivers making use of GLONASS. NPO Progress describes a receiver called "GALS-A1" which combines GPS and GLONASS reception. SkyWave Mobile Communications manufactures an Inmarsat-based satellite communications terminal that uses both **GLONASS and GPS**.

SPACE STATION - COLUMBUS (EU)



Columbus laboratory

The Columbus laboratory is ESA's biggest single contribution to the International Space Station. The 4.5-metre diameter cylindrical module is equipped with flexible research facilities that offer extensive science capabilities.

During its 10-year projected lifespan, Earth-based researchers, together with the ISS crew, will be able to conduct thousands of experiments in life sciences, materials science, fluid physics and a whole host of other disciplines, all in the weightlessness of orbit.

To keep costs low and reliability high, Columbus shares its basic structure and life-support systems with the Italian space agency's (ASI) Multi-Purpose Logistics Modules (MPLM). But whereas the MPLM is aptly described as a 'space moving van' - albeit a very sophisticated moving van - the 75 cubic metres of space inside Columbus contains an entire suite of science laboratories.



Payload racks

The Columbus laboratory has room for ten International Standard Payload Racks (ISPRs), eight situated in the sidewalls, and two in the ceiling area. Each rack is the size of a telephone booth and able to host its own autonomous and independent laboratory, complete with power and cooling systems, and video and data links back to researchers on Earth. ESA has developed a range of payload racks, all tailored to squeeze the maximum amount of research from the minimum of space and to offer European scientists across a wide range of disciplines full access to a weightless environment that cannot possibly be duplicated on Earth.

Columbus was outfitted with five internal payload racks at launch

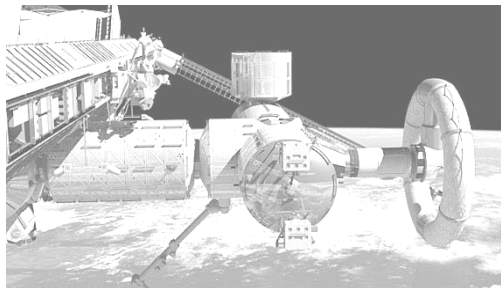
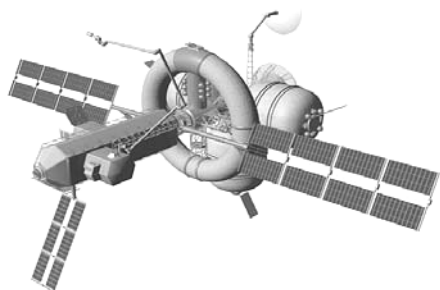
- **Biolab** - supports experiments on micro-organisms, cells and tissue cultures, and even small plants and small insects.
- **The European Physiology Modules Facility (EPM)** - a set of experiments that will be used to investigate the effects of long-duration spaceflight on the human body. Experiment results will also contribute to an increased understanding of age-related bone loss, balance disorders and other ailments back on Earth.
- **The Fluid Science Laboratory (FSL)** - will accommodate experiments in the strange behaviour of weightless liquids. These too, could bring far-reaching benefits on Earth: better ways to clean up oil spills, for example, and even improved manufacture of optical lenses.
- **The European Drawer Rack (EDR)** - is a modular and flexible experiment carrier system for a large variety of scientific disciplines, providing basic accommodation and resources for experiment modules housed within standardised drawers and lockers.
- **The European Transport Carrier (ETC)** - accommodates items for transport and stowage. In orbit ETC will serve as a workbench and stowage facility.



Columbus Control Centre, Oberpfaffenhofen, Germany.

Under the call sign 'Munich', the Columbus Control Centre will, from 2007, be responsible for systems on board the orbiting Columbus laboratory and for European science activities on board the ISS. The centre is already building operational expertise during ESA's Astrolab Mission.

SPACE STATION - NAUTILUS-X (NASA)



NAUTILUS-X stands for Non-Atmospheric Universal Transport Intended for Lengthy United States eXploration

This tubular spacecraft could serve as a reusable vehicle for lunar and deep-space missions, holding a crew of six and enough supplies for a two-year expedition. Dubbed Nautilus-X, for "Non-Atmospheric Universal Transport Intended for Lengthy United States eXploration," this craft could be built in orbit and ready for space missions by 2020, according to a briefing by NASA's Future In Space Operations group.

Nautilus is a multi-mission space exploration vehicle, so it could incorporate mission-specific propulsion units, according to Edward Henderson of NASA Johnson Space Center. Theoretically, you could swap out engines and fuel depending on where you wanted to go. Such an all-purpose system would be simpler than building heavy-lift rockets for specific missions to the moon or Mars.

Henderson described the system at a briefing on NASA's Technology Applications Assessment Team, which is studying (relatively) inexpensive, quick-turnaround technologies for space exploration. Check out the PowerPoint slides [**here**](#). HobbySpace has a nice **roundup of the meeting**, which also included a DARPA-funded geosynchronous satellite servicing project, in-situ water recovery on the Moon, a project that would demonstrate space-based solar power beams, a solar electric propulsion vehicle, and propellant depots floating in geosynchronous orbit.

MILITARY SPACE PROGRAM - GMES/EU



Sentinel-2

Sentinel-2 will provide systematic global acquisitions of high-resolution multispectral imagery for Europe's Global Monitoring for Environment and Security (GMES) programme.

GMES (Global Monitoring for Environment and Security) is the response to the need by Europe for geo-spatial information services. It provides autonomous and independent access to information for policy-makers, particularly in relation to environment and security.

The success of GMES will be achieved largely through a well-engineered Space Component for the provision of Earth-observation data to feed into a range of services for monitoring the environment and supporting civil security activities.

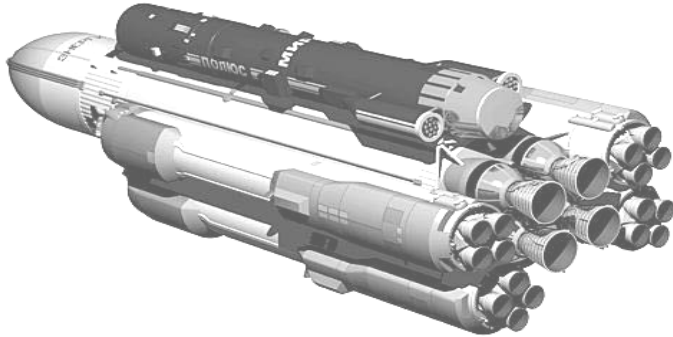
With the benefit of more three decades of experience in implementing satellite missions to observe Earth from space, ESA is well-placed to develop and manage this core component of GMES.

The GMES Space Component comprises two types of satellite missions, ESA's five families of dedicated Sentinels and missions from other space agencies, called Contributing Missions. A unified ground segment, through which the data are streamed and made freely available for GMES services, completes the Space Component. The Sentinels will be launched from 2013.

These missions carry a range of technologies, such as radar and multi-spectral imaging instruments for land, ocean and atmospheric monitoring:

- Sentinel-1 will provide all-weather, day and night radar imagery for land and ocean services,
- Sentinel-2 will provide high-resolution optical imagery for land services,
- Sentinel-3 will provide high-accuracy optical, radar and altimetry data for marine and land services,
- Sentinel-4 and Sentinel-5 will provide data for atmospheric composition monitoring from geostationary orbit and polar orbit, respectively.

MILITARY SPACE PROGRAM - POLYUS (RUSSIA)



The Polyus military testbed was put together on a crash basis as an answer to America's Star Wars program. It was built around a surplus TKS manned spacecraft and was meant to test prototype ASAT and Star Wars defense systems. It failed to reach orbit, but it had succeeded, it would have been the core module of a new Mir-2 space station. Its mere presence could have decisively changed the shape of the Cold War in its final months.

Polyus Starwars system launched in 1987:

The Polyus testbed contained means of defence against both ASAT weapons and beam weapons, though according to Kornilov's article these were only meant to conduct approach and docking tests. A cannon was mounted on Polyus to defend against ASAT weapons. An optical sighting system for the defensive cannon was included in addition to a sighting radar. By this means hostile ASAT weapons could be tracked without generating traceable signals. Experiments to check the efficiency of barium clouds in diffusing particle beams were also to have been conducted with Polyus.

A Polyus mock-up was delivered by the Krunichev Factory to Baikonur Cosmodrome in July, 1986, for tests of the Polyus/Energia interface. The spacecraft was about 37 meters in length, 4.1 meters in diameter and weighed about 80 metric tons. A question exists whether a mock-up of the Polyus test bed was constructed and if it still exists. There have been several schemes advanced by the Salyut Design Bureau and the Krunichev Factory for the commercial adaptation of Polyus and these may be intended to make use of this mock-up. Polyus's failure to achieve working orbit was caused by a faulty inertial guidance sensor. An article entitled "Unknown Polyus" by Yuri Kornilov, Chief Designer of the Salyut Design Bureau, has appeared in the journal "Earth and the Universe", and it provides details about the construction and testing of the first payload for the Energia rocket, the "Polyus" spacecraft. While Kornilov invites the reader to "read between the lines" and points out previous Soviet mis-statements about the Polyus, he is under a security ban which would lead to a 10 years in prison if he reveals (Soviet) "state" secrets. His article continues to claim that weapons systems tests were peaceful experiments.

On March 23, 1983, United States President Ronald Reagan set forth his vision of "Star Wars", a shield intended to defend the United States against nuclear attack from any place on Earth. The leader of the Soviet Union, Yuri Andropov, immediately accused the United States of seeking to militarily dominate the Soviet Union, and it appears he also authorised the design of counter-measures, including Polyus. Andropov sought to bring about a treaty banning military weapons from space until he fell ill in June, 1983.

The Soviet space program ran on a five year cycle and Kornilov complains that the Polyus spacecraft had less than the customary five years for development. It was decided that the Polyus would be the payload for the first launch of the Energia heavy lifter, then scheduled for the fall of 1986. Kornilov gives no reason for the rushed development.

Kornilov then goes on to declare that because of this rush Polyus was created by combining components from several current projects. The interface between Polyus and the Energia booster was adapted from the Buran Space Shuttle. The central module was adapted from a module for the Mir 2 Space Station. The replaceable and returnable space station to house cosmonauts was adapted from the upgrade of the existing TKS Transport Supply Spacecraft (Kosmos 929, 1267, 1443, 1668). Since the interface of the replaceable space station with the Proton launch vehicle was adapted to interface it with the central module, the rocket engines for orbital insertion had to be placed in the nose of the vehicle. This placement had catastrophic consequences for the Polyus spacecraft.

After Andropov's death in February, 1984 his successor Konstantin Chernenko continued to press for a treaty banning the militarisation of space. None the less, apparently following the successful test by the US Army of an anti-ballistic missile on June 12, 1984, and the rejection of a Soviet diplomatic initiative on July 1, construction of the Polyus began at the Krunichev Factory.

Design and construction of the platform was given the highest priority, and was under the personal supervision of Armaments Minister O D Baklanov (who later organised the coup against Michael Gorbachev) and Vice Minister O N Shishkin. These two met weekly with project leaders and issued immediate orders for the production of any needed components.

Chernenko's successor Michael Gorbachev denounced the militarisation of space on his first diplomatic trips abroad in December, 1984. Following Chernenko's death on March 12, 1985, and his becoming leader, Gorbachev proposed a freeze on the development of space weapons.

NAVAL - SPACE COMMAND

Mission

Headquartered at Dahlgren, Va., Naval Space Command began operations

Oct. 1, 1983. Naval Space Command uses the medium of space and its potential to provide essential information and capabilities to shore and afloat naval forces by a variety of means:

- Operating surveillance, navigation, communication, environmental, and information systems;
- Advocating naval warfighting requirements in the joint arena;
- Advising, supporting, and assisting the naval services through training, and by developing space plans, programs, policies, concepts, and doctrine.

Overview

Naval Space Command's headquarters staff and operational element numbers approximately 350 Navy military and civilian personnel. Their component commands include the Naval Satellite Operations Center and the Fleet Surveillance Support Command.

Naval Space Command, a component of USSPACECOM, operates assigned space systems to provide surveillance and warning, and provides spacecraft telemetry and on-orbit engineering support. In addition, Naval Space Command serves as the Alternate Space Control Center [ASCC] for USSPACECOM's primary centers located at Cheyenne Mountain AS. ASCC missions include operational direction of the entire global space surveillance network (SSN) for commander in chief, USSPACECOM (USCINCSpace). The ASCC also detects, tracks, identifies, and catalogs all man-made objects in space and provides position information on these objects to about 1,000 customers. In addition, ASCC is charged with monitoring the space environment and informing owners and operators of U.S. and allied space systems of potential threats to their assets by continuous liaison with the systems' operations centers.

The heartbeat of **Naval Space Command** revolves around providing space support to day-to-day operations of the Fleet and Fleet Marine Forces worldwide, whether for routine deployments, exercises, or actions in response to a crisis situation. This space support to terrestrial and naval forces can be categorized across a broad spectrum of activities that encompass communications, surveillance and indication, and warning, intelligence, navigation, and remote sensing.

Surveillance:

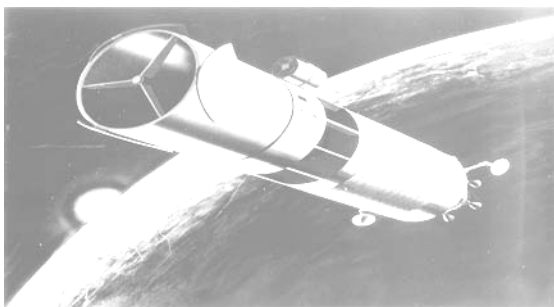
A constant and vigilant surveillance of potentially hostile military threats is critical in preserving the operational effectiveness of our armed forces around the world. Naval Space Command manages two distinct surveillance efforts in support of Fleet and Fleet Marine Forces: tracking satellites in orbit and monitoring over-the-horizon threats from sea and air forces. First, Naval Space Command operates a surveillance network of nine field stations located across the southern U.S. Three transmitter sites in the network are located at Jordan Lake, Ala., Lake Kickapoo, Texas, and Gila River, Ariz. Six receiver sites are located at Tattnall, Ga., Hawkinsville, Ga., Silver Lake, Miss., Red River, Ark., Elephant Butte, N.M., and San Diego, Calif.

These surveillance stations produce a "fence" of electromagnetic energy that can detect objects out to an effective range of 15,000 nautical miles.

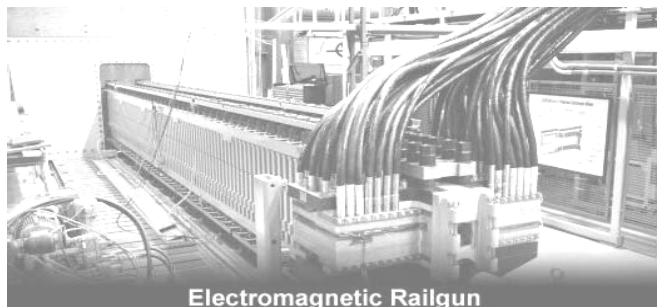
Over one million satellite detections, or observations, are collected by this surveillance network each month. Data gathered is transmitted to a computer center at Naval Space Command headquarters in Dahlgren, where it is used to constantly update a data base of spacecraft orbital elements. This information is reported to Fleet and Fleet Marine Forces to alert them when particular satellites of interest are overhead. The command also maintains a catalog of all earth-orbiting satellites and supports USSPACECOM as part of the nation's worldwide Space Surveillance Network...

Intelligence:

Naval Space Command provides space intelligence support to deployed naval forces through an initiative dubbed "Chambered Round." The Chambered Round product is a message that provides deployed naval forces with tactical assessments of hostile space capabilities and specific reactions to their operations. This knowledge assists Fleet and Fleet Marine Force tactical units in reducing their vulnerability to space reconnaissance efforts...



TRW - Direct Energy Weapon



**Electromagnetic Railgun
"Naval-Surface Warfare Center" - Virginia**

MARYLAND COMPUTERS



Maryland's aerospace and defense industry includes 12 major military installations, 16 of America's top 25 aerospace companies and 70 of the top 100 defense contractors. The state is a thriving location for space exploration, satellite technology and research, design and manufacturing of UAVs and robotics. The industry includes Department of Defense related activities such as biodefense, cyber security, avionics, informatics and ordnance and weapons testing. In 2009, Maryland's 2,600 aerospace and defense businesses were awarded \$3.5 billion in federal contracts and generated \$21.2 billion in Gross Domestic Product.

RESEARCH

Maryland has more than 50 federal research agencies and ranks second nationally in research and development investments by the federal government, with \$12.5 billion in annual funding.

ADVANCING SPACE EXPLORATION

Research and development in Maryland based organizations revolutionize aerospace and space exploration offering mankind an up-close look at mysteries of our planet with help from the Hubble Space Telescope, the MESSENGER satellite and the James Webb Space Telescope.

- JHU Applied Physics Lab
- U.S. Army Research Laboratory
- Naval Air Warfare Center Aircraft Division
- Naval Air Systems Command
- NASA Goddard Space Flight Center
- Mid-Atlantic Regional Spaceport

MARYLAND MILITARY INSTALLATIONS

- Aberdeen Proving Ground
- Adelphi Laboratory Center
- Army Corps of Engineers, Baltimore District
- Carderock Division, Naval Surface Warfare Center
- Coast Guard Yard, Curtis Bay
- Fort Detrick
- Fort George G. Meade
- Joint Base Andrews Naval Air Facility Washington
- National Naval Medical Center at Bethesda
- Naval Air Station Patuxent River
- Naval Support Facility Indian Head
- United States Naval Academy

TOP MARYLAND DEFENSE IT CONTRACTORS

- Boeing
- IBM
- Booz Allen Hamilton
- L-3 Communications
- CACI International
- Lockheed Martin
- CSC
- MITRE
- General Dynamics
- Northrop Grumman
- Honeywell International
- SAIC

EDUCATION

Maryland has world-renowned colleges and universities with outstanding computer science and engineering programs. Nationally ranked STEM and competitive research programs include the University System of Maryland, which attracts more than \$1 billion annually in external research and development support and **Johns Hopkins University**, the nation's leading University in volume of research.

- **University of Maryland College Park** is ranked among the top ten universities in graduate and undergraduate aerospace engineering and produces the largest number of STEM graduates in the state.
- **University of Maryland Baltimore County** has the second highest percentage of graduates in STEM fields of any university in the state and is home to the Center for Information Security and Assurance.
- **University of Maryland University College** is one of the world's largest public universities. Specialized training programs include Homeland Security and Information Assurance, Information Technology, Project Management and Software Engineering.
- **United States Naval Academy** ranks second in the nation among top public liberal arts colleges, fifth in undergraduate engineering (among schools without PhD programs); its programs in aerospace and electronics/communications engineering rank in top ten.
- **Anne Arundel Community College** the first 2-year college to develop a cybersecurity curriculum, the Information Systems Security program offers an AA degree, certificate and courses to students for entry-level positions in cybersecurity.

13.Space Weapons

Richard L. Garwin (USA)
Wednesday 14th May, 2003

Classes of weapons:

1. Directed-energy weapons such as space-based lasers DEW
2. Kinetic -energy weapons against missile targets KEW
3. Kinetic -energy weapons against surface targets KEW
4. Conventional warheads delivered by space-based, or space-traversing, vehicles.

Here is a tabulation of threats:

- 1) denial & deception
- 2) electronic warfare
- 3) attack on ground stations
- 4) sensor blinding
- 5) microsatellites
- 6) direct-ascent interceptors
- 7) nuclear detonation in space

GOVERNMENT PATENST MIND CONTROL

- Patent 1,096,102 - *The Hollow Earth Theory*
 Patent 3,951,134 - *Apparatus and method for remotely monitoring and altering brain waves*
 Patent 4,686,685 - *Method And Apparatus for Altering a Region in the Earth's Atmosphere, Ionosphere, and/or Magnetosphere*
 Patent 4,717,343 - *Method of Changing Person's Behavior*
 Patent 4,858,612 - *Hearing Device*
 Patent 4,877,027 - *Hearing System*
 Patent 5,123,899 - *Method and System for Altering Consciousness*
 Patent 5,159,703 - *Silent Subliminal Presentation System*
 Patent 5,270,800 - *Subliminal Message Generator*
 Patent 5,507,291 - *Method and an Associated Apparatus for Remotely Determining information as to Person's Emotional State*
 Patent 5,539,705 - *Ultrasonic Speech Translator and Communications System*
 Patent 5,629,678 - *Personal Tracking and Recovery System*
 Patent 5,760,692 - *Intra-oral Tracking Device*
 Patent 5,878,155 - *Method for verifying human identity during electronic sale transactions*
 Patent 5,905,461 - *Global Positioning Satellite Tracking Device*
 Patent 5,935,054 - *Magnetic excitation of Sensory Resonances*
 Patent 5,952,600 - *Engine Disabling Weapon*
 Patent 6,006,188 - *Speech Signal Processing for Determining Psychological or Physiological Characteristics Using a Knowledge Base*
 Patent 6,011,991 - *Communication system and method including brain wave analysis and/or use of brain activity*
 Patent 6,014,080 - *Body Worn Active and Passive Tracking Device*
 Patent 6,017,302 - *Subliminal Acoustic Manipulation of Nervous System*
 Patent 6,051,594 - *Methods and Formulations for Modulating the Human Sexual Response*
 Patent 6,669,094 - *Method of Embedding and Recovering Encoded Item Identification Information in an Emulsion by Means of Radiant Energy*

14.HUMAN RESEARCH PROTECTION PROGRAM

DEPARTMENT OF THE NAVY
 OFFICE OF THE SECRETARY
 1000 NAVY PENTAGON
 WASHINGTON DC 20350-1000 SECNAVINST 3900.39D
 BUMED MOOR, 3 November 2006



SECNAV INSTRUCTION 3900.39D
 From: Secretary of the Navy
 Subj: HUMAN RESEARCH PROTECTION PROGRAM

i. International Research.

Research involving human subjects who are not U.S. citizens or DOD personnel, conducted outside the United States, and its territories and possessions, requires permission of the host country. The laws, customs, and practices of the host country and those required by this instruction will be followed. An ethics review by the host country, or local Naval IRE with host country representation, is required.

j. Classified Research.

Classified research with human subjects is held to the same ethical principles and human subject protections as unclassified research and must receive prior approval from the Secretary of Defense (SECDEF) (SECDEF Memorandum of December 13, 1999) . Classified research is not eligible for review under expedited review procedures as noted in reference (n)

A. Research includes, but is not limited to, any project, task, test, pilot study, experiment, investigation, study, clinical study, clinical investigation, clinical trial, evaluation, developmental effort or similar undertaking, whether or not conducted or supported under a program that is officially considered research. Any effort, even if not considered research for other purposes, is considered research for purposes of this instruction.

15.Scientists to study synthetic telepathy

Researchers get grant to develop communication system based on thoughts, not speech, Irvine, Calif., August 13, 2008

A team of UC Irvine scientists has been awarded a \$4 million grant from the U.S. Army Research Office to study the neuroscientific and signal-processing foundations of synthetic telepathy. The research could lead to a communication system that would benefit soldiers on the battlefield and paralysis and stroke patients, according to lead researcher Michael D'Zmura, chair of the UCI Department of Cognitive Sciences.

"Thanks to this generous grant we can work with experts in automatic speech recognition and in brain imaging at other universities to research a brain-computer interface with applications in military, medical and commercial settings," D'Zmura says.

The brain-computer interface would use a noninvasive brain imaging technology like electroencephalography to let people communicate thoughts to each other. For example, a soldier would "think" a message to be transmitted and a computer-based speech recognition system would decode the EEG signals. The decoded thoughts, in essence translated brain waves, are transmitted using a system that points in the direction of the intended target.

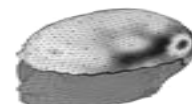
"Such a system would require extensive training for anyone using it to send and receive messages," D'Zmura says. Initially, communication would be based on a limited set of words or phrases that are recognized by the system; it would involve more complex language and speech as the technology is developed further."

D'Zmura will collaborate with UCI cognitive science professors Ramesh Srinivasan, Gregory Hickok and Kourosh Saberi. Joining the team are researchers Richard Stern and Vijayakumar Bhagavatula from Carnegie Mellon University and David Poeppel from the University of Maryland. The grant comes from the U.S. Department of Defense's Multidisciplinary University Research Initiative program-MURI, which supports research involving more than one science and engineering discipline. Its goal is to develop applications for military and commercial uses.

About the University of California, Irvine: The University of California, Irvine is a top-ranked university dedicated to research, scholarship and community service. Founded in 1965, UCI is among the fastest-growing University of California campuses, with more than 27,000 undergraduate and graduate students and nearly 2,000 faculty members. The third-largest employer in dynamic Orange County, UCI contributes an annual economic impact of \$3.6 billion.

16.MURI: Synthetic Telepathy

Multidisciplinary University research initiative program



RESEARCH

We are conducting basic neuroscientific and signal-processing research on imagined speech production and on intended direction. When thinking to oneself silently, one can often hear imagined words in one's head. We use non-invasive brain-imaging techniques like EEG, MEG and fMRI to learn more about how the brain produces imagined speech when one thinks. We aim to process EEG and MEG signals to determine what words a person is thinking and to whom or what location the message should be sent. The research is conducted by teams at the University of California, Irvine, at Carnegie Mellon University, and at the New York University. The work of seven investigators and their students is supported directly by this project.

This work is supported by one of 34 awards made in 2008 by the Department of Defense (DoD) to academic institutions to perform multi-disciplinary basic research. Awards are made by one of three DoD research offices: the Army Research Office (ARO) Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR). The award is part of the the DoD Multi-disciplinary University Research Initiative (MURI) program. The MURI program supports multi-disciplinary basic research in areas of DoD interest that include more than one traditional science and engineering discipline. For such a multidisciplinary research area, bringing together scientists and engineers with different areas of expertise can accelerate basic research progress and the transitioning of research results to application. The MURI program complements other DoD research programs, which support standard single-investigator research at academic institutions, through awards to multi-disciplinary teams that are both larger and longer in duration. The 2008 awards are for a three-year base period with a two-year option which depends upon the availability of appropriations and satisfactory research progress. MURI awards can provide greater sustained support than single-investigator awards for the graduate training of students pursuing advanced work in science and engineering, as well as for associated infrastructure like research equipment. MURI program is highly competitive. ARO, ONR, and AFOSR solicited proposals in 18 topics important to DoD and received a total of 104 proposals for 2008 funding. The 34 proposals selected underwent merit review by panels of experts in the pertinent science and engineering fields. This MURI award is being supervised by ARO, which is part of the Army Research Laboratory. The ARO's mission is to (1) serve as the Army's premier extramural basic research agency in engineering, physical, information and life sciences, and (2) develop and exploit innovative advances to insure the Nation's technological superiority. Basic research proposals from educational institutions, nonprofit organizations, and private industry are competitively selected and funded.

17. /10 Modern Methods of Mind Control

1. Education – This is the most obvious, yet still remains the most insidious. It has always been a would-be dictator's ultimate fantasy to "educate" naturally

impressionable children, thus it has been a central component to Communist and Fascist tyrannies throughout history. No one has been more instrumental in exposing the agenda of modern education than Charlotte Iserbyt – one can begin research into this area by downloading a free PDF of her book, *The Deliberate Dumbing Down of America*, which lays bare the role of Globalist foundations in shaping a future intended to produce servile drones lorded over by a fully educated, aware elite class.

2. Advertising and Propaganda – Edward Bernays has been cited as the inventor of the consumerist culture that was designed primarily to target people's self-image (or lack thereof) in order to turn a want into a need. This was initially envisioned for products such as cigarettes, for example. However, Bernays also noted in his 1928 book, *Propaganda*, that "propaganda is the executive arm of the invisible government." This can be seen most clearly in the modern police state and the growing citizen snitch culture, wrapped up in the pseudo-patriotic War on Terror. The increasing consolidation of media has enabled the entire corporate structure to merge with government, which now utilizes the concept of propaganda placement. Media; print, movies, television, and cable news can now work seamlessly to integrate an overall message which seems to have the ring of truth because it comes from so many sources, simultaneously. When one becomes attuned to identifying the main "message," one will see this imprinting everywhere. And this is not even to mention subliminal messaging.

3. Predictive Programming – Many still deny that predictive programming is real. I would invite anyone to examine the range of documentation put together by Alan Watt and come to any other conclusion. Predictive programming has its origins in predominately elitist Hollywood, where the big screen can offer a big vision of where society is headed. Just look back at the books and movies which you thought were far-fetched, or "science fiction" and take a close look around at society today. For a detailed breakdown of specific examples, Vigilant Citizen is a great resource that will probably make you look at "entertainment" in a completely different light.

4. Sports, Politics, Religion – Some might take offense at seeing religion, or even politics, put alongside sports as a method of mind control. The central theme is the same throughout: divide and conquer. The techniques are quite simple: short circuit the natural tendency of people to cooperate for their survival, and teach them to form teams bent on domination and winning. Sports has always had a role as a key distraction that corrals tribal tendencies into a non-important event, which in modern America has reached ridiculous proportions where protests will break out over a sport celebrity leaving their city, but essential human issues such as liberty are giggled away as inconsequential. Political discourse is strictly in a left-right paradigm of easily controlled opposition, while religion is the backdrop of nearly every war throughout history.

5. Food, Water, and Air – Additives, toxins, and other food poisons literally alter brain chemistry to create docility and apathy. Fluoride in drinking water has been proven to lower IQ; Aspartame and MSG are excitotoxins which excite brain cells until they die; and easy access to the fast food that contains these poisons generally has created a population that lacks focus and motivation for any type of active lifestyle. Most of the modern world is perfectly groomed for passive receptiveness – and acceptance – of the dictatorial elite. And if you choose to diligently watch your diet, they are fully prepared to spray the population from the above.

6. Drugs – This can be any addictive substance, but the mission of mind controllers is to be sure you are addicted to *something*. One major arm of the modern mind control agenda is psychiatry, which aims to define all people by their disorders,

as opposed to their human potential. This was foreshadowed in books such as *Brave New World*. Today, it has been taken to even further extremes as a medical tyranny has taken hold where nearly everyone has some sort of disorder – particularly those who question authority. The use of nerve drugs in the military has led to record numbers of suicides. Worst of all, the modern drug state now has over 25% of U.S. children on mind-numbing medication.

7. Military testing – The military has a long history as the testing ground for mind control. The military mind is perhaps the most malleable, as those who pursue life in the military generally resonate to the structures of hierarchy, control, and the need for unchallenged obedience to a mission. For the increasing number of military personnel questioning their indoctrination, a recent story highlighted DARPA's plans for transcranial mind control helmets that will keep them focused.

8. Electromagnetic spectrum – An electromagnetic soup envelops us all, charged by modern devices of convenience which have been shown to have a direct impact on brain function. In a tacit admission of what is possible, one researcher has been working with a "god helmet" to induce visions by altering the electromagnetic field of the brain. Our modern soup has us passively bathed by potentially mind-altering waves, while a wide range of possibilities such as cell phone towers is now available to the would-be mind controller for more direct intervention.

9. Television, Computer, and "flicker rate"– It's bad enough that what is "programmed" on your TV (accessed via remote "control") is engineered; it is all made easier by literally lulling you to sleep, making it a psycho-social weapon. Flicker rate tests show that alpha brain waves are altered, producing a type of hypnosis – which doesn't portend well for the latest revelation that lights can transmit coded Internet data by "flickering faster than the eye can see." The computer's flicker rate is less, but through video games, social networks, and a basic structure which overloads the brain with information, the rapid pace of modern communication induces an ADHD state. A study of video games revealed that extended play can result in lower blood flow to the brain, sapping emotional control. Furthermore, role-playing games of lifelike war and police state scenarios serve to desensitize a connection to reality. One look at the WikiLeaks video Collateral Murder should be familiar to anyone who has seen a game like Call of Duty.

10. Nanobots – From science fiction horror, directly to the modern brain; the nanobots are on the way. Direct brain modification already has been packaged as "neuroengineering." A Wired article from early 2009 highlighted that direct brain manipulation via fiber optics is a bit messy, but once installed "it could make someone happy with the press of a button." Nanobots take the process to an automated level, rewiring the brain molecule by molecule. Worse, these mini droids can self-replicate, forcing one to wonder how this genie would ever get back in the bottle once unleashed.

Expected date of arrival? Early 2020s. A concerted effort is underway to manage and predict **human behavior** so that the social scientists and the dictatorial elite can control the masses and protect themselves from the fallout of a fully awake free humanity. Only by waking up to their attempts to put us to sleep do we stand a chance of preserving our free will.

18. S E C R E T T E S T

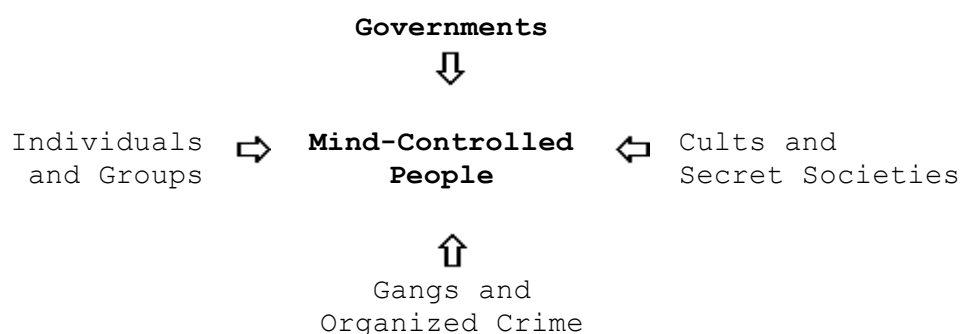
Mind Control:

Systematic control of people's memories, thoughts, feelings, and behaviors by others. It may involve ritual abuse.

Ritual Abuse:

Methodical and severe abuse of people with deception, training, and exploitation by others. It always involves mind control.

Control and Abuse Sources



Control and Abuse Basics¹

Deception: Hidden and disguised recruitment, training, and activities.

Debility: Physical, biological, and psychological attacks weaken individuals.

Dependency: Tactics and drugs employed destroy self-sufficiency and force reliance on manipulators.

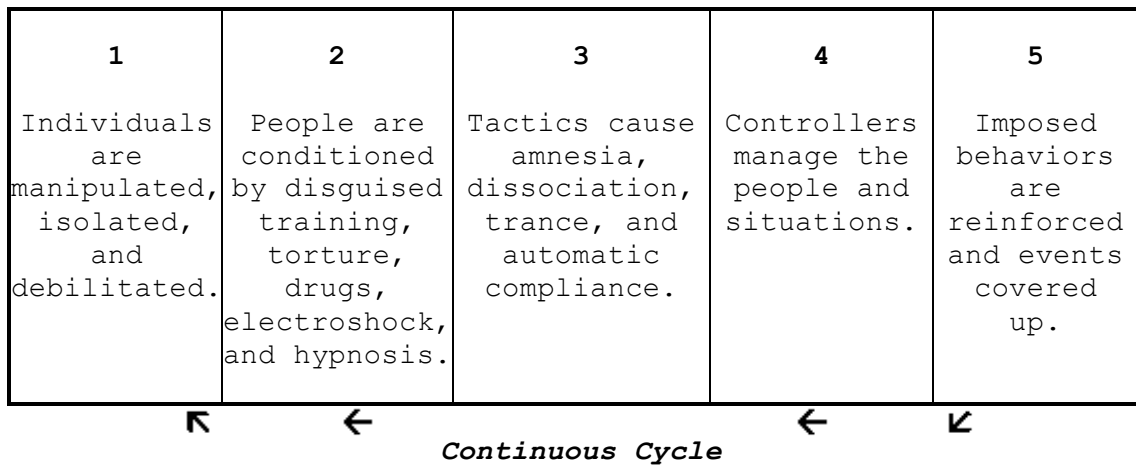
Dread: Cruelty and confusion techniques create depression, uncertainty, numbness, fear, and rage.

Dysfunctions: Methods cause memory loss (amnesia), blocking of awareness (dissociation), hypnotic trance, and mindless obedience.

Double Amnesia: Procedures make people unaware of their lost memories (amnesia for amnesia).

Desensitization: Diminished thoughts, emotions, and behaviors are replaced with induced responses.

Control and Abuse Methods



Control and Abuse Results

Controllers

Dominate people by concealed methods.

Use signals (post-hypnotic cues) to trigger conditioned responses.

The signals include gestures, lights, symbols, words, sounds, smells, touches, substances, etc.

Coordinate the exploitation and secrecy.

Mind-Controlled People

➔ Molded into roles such as informer, enforcer, courier, performer, lover, etc.

➔ Repeatedly react with controllers' prepared behaviors.

➔ Made to obey but don't know the signals and believe abusers' ideas are their own thoughts and motives.

➔ Usually unaware of the hidden conditioning, control, and activities.

19.NATO - Genocide in Afghanistan

JURIST Contributing Editor **Ali Khan** of Washburn University School of Law says that in the name of the "war of terror," NATO forces in Afghanistan are committing genocide by systematically hunting down and destroying the Taliban, a puritanical Islamic group, contrary to the terms of the Convention on the Prevention and Punishment of the Crime of Genocide...

The Facts

The NATO website lists its killings in Afghanistan. These killings are also reported in the world media, often with a shameless tone of gratitude as if NATO forces are engaged in wiping out cannibals. In 2007 alone, NATO helicopters and precision guided munitions bombed and killed over six thousand "Taliban." Read the following recent attacks, which the NATO itself reports, and smell the scent of genocide:

- On January 19, 2008, NATO launched a preemptive strike relying on "credible intelligence" that the Taliban were planning to mass on a NATO base. The attack killed two dozen "insurgents" in the Watapoor District of Kunar Province, though the exact number of casualties could not be confirmed because of the rough mountainous region. The world media reported that numerous civilians were killed and 25 bodies were buried in just one mass grave.
- On January 12, 2008, NATO forces conducted what it calls a "precise strike" on a compound in Kapsia Province targeting Taliban leaders. NATO claimed that the civilians were cleared from the compound before the attack. The claim is absurd because any removal of civilians from the compound would have alerted the battle-hardened Taliban that an enemy attack was imminent.
- On September 20, 2007, NATO forces launched "Operation Palk Wahel" to kill and remove the Taliban from an area in the Upper Gereshk Valley. Numerous civilians were killed. The evidence of the genocide was so obvious that NATO admitted that it "was unaware of civilians in the vicinity of the target and unfortunately it appears that a number of non-combatants were caught in the attack and killed."



NATO - Brussel

20.SYNTHETIC TELEPATHY - THE EARLY MIND WARS

Richard Alan Miller, c2001

[Presented at the Consciousness Technologies Conference,
July 19-21, 2001, on **Saturday, July 20th, 2001, in Sisters, OR**
<http://www.bluehoney.org/CT2001Gallery.htm>]

Introduction:

I first became aware of Allan Frey's work at Willow Grove in 1972, just after completing *"The Holographic Concept of Reality."* I was working with Dr. Carl Scheicher (MRU) at the time, and was asked about the significance of this work. Realizing its possible use in mind control, my first reaction was to go on "red alert."

Full significance was not yet understood at this time. Basically, Frey had discovered another sensory motor input in the higher blue-band frequencies of 0.3-3.0 GHz. - at very low amplitudes of power. It was "as if" we had another type of "vision," but did not know how to "see" what was being received. It constituted the next generation of subliminal communications. My work at the time was involved with an AI database for paranormal references (Project Parafile). A second paper was also presented at the Omniversal Symposium, California State College at Sonoma, (September 29, 1973). This was titled "Embryonic Holography," and was an application of the *"Holographic Concept of Reality"* model. It dealt with biogenesis and neurological regeneration, and included speculation on the origins of cancer, faith healing, psychic surgery and more technical aspects of mind-body energetics. One week after the delivery of that paper, four men came into my place of business, two in suits and two in full Army dress. The two suits held me under close arrest, while the two Army personnel went through my files, pulling anything related to *"Embryonic Holography."* The paper was rewritten from old notes and memory, but it was not the same. What got this paper classified "top secret" for almost 20 years was that it was critical for the use of Allan Frey's study, and its possible application to mind control. I never was able to draw what was so important in that initial paper until I began researching this paper, more than 24 years later. I will discuss those aspects further into this document. In 1961, Allen Frey, a freelance biophysicist and engineering psychologist, reported that humans could hear microwaves. Most United States scientists dismissed this discovery as the result of outside noise. James C. Linn offered a more technical description of the experiment.

"Frey found that human subjects exposed to 1310 MHz and 2982 MHz microwaves at average power densities of 0.4 to 2 mW/cm² perceived auditory sensations described as buzzing or knocking sounds. The sensation occurred instantaneously at average incident power densities well below that necessary for known biological damage and appeared to originate from within or near the back of the head."

Pulsed Microwave Technology

Pulsed microwave voice-to-skull (or other-sound-to-skull) transmission was discovered during World War II by radar technicians who found they could hear the buzz of the train of pulses being transmitted by radar equipment they were working on. This phenomenon has been studied extensively by Dr. Allan Frey, (Willow Grove, 1965) whose work has been published in a number of reference books.

What Dr. Frey found was that single pulses of microwave could be heard by some people as "pops" or "clicks", while a train of uniform pulses could be heard as a buzz, without benefit of any type of receiver. Dr. Frey also found that a wide range of frequencies, as low as 125 MHz (well below microwave) worked for some combination of pulse power and pulse width. Detailed unclassified studies mapped out those frequencies and pulse characteristics which are optimum for generation of "microwave hearing".

Very significantly, when discussing electronic mind control, is the fact that the peak pulse power required is modest - something like 0.3 watts per square centimeter of skull surface, and that this power level is only applied or needed for a very small percentage of each pulse's cycle time. 0.3- watts/sq cm is about what you get under a 250-watt heat lamp at a distance of one meter. It is not a lot of power. When you take into account that the pulse train is off (no signal) for most of each cycle, the average power is so low as to be nearly undetectable. This is the concept of "spike" waves used in radar and other military forms of communication. Frequencies that act as voice-to-skull carriers are not single frequencies, as, for example TV or cell phone channels. Each sensitive frequency is actually a range or "band" of frequencies. A technology used to reduce both interference and detection is called "spread spectrum". Spread spectrum signals usually have the carrier frequency "hop" around within a specified band. Unless a receiver "knows" this hop schedule in advance, like other forms of encryption there is virtually no chance of receiving or detecting a coherent readable signal. Spectrum analyzers, used for detection, are receivers with a screen. A spread spectrum signal received on a spectrum analyzer appears as just more "static" or noise.

The actual method of the first successful unclassified voice to skull experiment was in 1974, by Dr. Joseph C. Sharp and Mark Grove, then at the Walter Reed Army Institute of Research. A Frey-type audible pulse was transmitted every time the voice waveform passed down through the zero axes, a technique easily duplicated by ham radio operators who build their own equipment.

The sensation is reported as a buzzing, clicking, or hissing which seems to originate within or just behind the head. The phenomenon occurs with carrier densities as low as microwatts per square centimeter with carrier frequencies from 0.3-3.0 GHz. By proper choice of pulse characteristics, intelligent speech may be created.

Dr. James Lin of Wayne State University has written a book entitled: Microwave Auditory Effects and Applications. It explores the possible mechanisms for the phenomenon, and discusses possibilities for the deaf, as persons with certain types of hearing loss can still hear pulsed microwaves (as tones or clicks and buzzes, if words aren't modulated on).

Lin mentions the Sharp and Grove experiment and comments:

"The capability of communicating directly with humans by pulsed microwaves is obviously not limited to the field of therapeutic medicine."

"Synthetic Telepathy"

In 1975, researcher A. W. Guy stated that "one of the most widely observed and accepted biologic effects of low average power electromagnetic energy is the auditory sensation evoked in man when exposed to pulsed microwaves."

He concluded that at frequencies where the auditory effect can be easily detected, microwaves penetrate deep into the tissues of the head, causing rapid thermal expansion (at the microscopic level only) that produces strains in the brain tissue. An acoustic stress wave is then conducted through the skull to the cochlea, and from there, it proceeds in the same manner as in conventional hearing. It is obvious that receiver-less radio has not been adequately publicized or explained because of national security concerns.

Today, the ability to remotely transmit microwave voices inside a target's head is known inside the Pentagon as "Synthetic Telepathy." According to Dr. Robert Becker,

"Synthetic Telepathy has applications in covert operations designed to drive a target crazy with voices or deliver undetected instructions to a programmed assassin."

This technology may have contributed to the deaths of 25 defense scientists variously employed by Marconi Underwater and Defense Systems, Easems and GEC. Most of the scientists worked on highly sensitive electronic warfare programs for NATO, including the Strategic Defense Initiative. It is claimed that directed energy weapons might have been used to literally drive these men to suicide and 291 accidents.

Biological Amplification Using Microwave Band Frequencies

The next major development in ELF weaponry was the concept of a biological amplification of these signals at the cell level to perpetuate and set up resonance for more sophisticated information transfer. This was the beginning of using more than one technology in a stack to do something "more." While this was implied, it was never developed in "The Holographic Concept of Reality."

Electromagnetic fields or relatively weak power levels can affect intercellular communication. Bio-amplification is apparently why radio signals of very low average power (mw) can produce audio effects, and is difficult to detect. [*Electromagnetic Interaction with Biological Systems*, ed. Dr. James C. Lin, Univ. of Illinois, 1989, Plenum Press, NY]

Imposed weak low frequency fields (and radio frequency fields) that are many orders of magnitude weaker in the pericellular fluid (fluid between adjacent cells) than the membrane potential gradient (voltage across the membrane) can modulate the action of hormones, antibody neurotransmitters and cancer-promoting molecules at their cell surface receptor sites. These ELF sensitivities appear to involve nonequilibrium and highly cooperative processes that mediate a major amplification of initial weak triggers associated with the binding of these molecules (specific cell surface receptor sites). Membrane amplification is inherent in this transmembrane signaling sequence. Initial stimuli associated with weak perpendicular EM fields and with binding of stimulating molecules at their membrane receptor sites elicit a highly cooperative modification of Ca^{++} binding to glycoproteins along the membrane.

A longitudinal spread is consistent with the direction of extracellular current flow associated with physiological activity and imposed EM fields. This cooperative modification of surface Ca^{++} binding is an amplifying stage. By imposing RF fields, there is a far greater increase in Ca^{++} efflux than is accounted for in the events of receptor-ligand binding. from imposing RF fields.

Enzymes are protein molecules that function as catalysts, initiating and enhancing chemical reactions that would not otherwise occur at tissue temperatures. This ability resides in the pattern of electrical charges on the molecular surface. Activation of these enzymes and the reactions in which they participate involve energies millions of times greater than in the cell surface, triggering events initiated by the EM fields, emphasizing the membrane amplification inherent in this trans-membrane signaling sequence. Frey and Messenger confirmed that a microwave pulse with a slow rise time was ineffectual in producing an auditory response. Only if the rise time is short, resulting in effect in a square wave with respect to the leading edge of the envelope of radiated radio-frequency energy, does the auditory response occur. This is why we don't "hear" ordinary radio and TV signals.

The significance of "*Embryonic Holography*" now becomes more understandable. For example, the specific frequency bands (0.3-3.0 Hz) are so flat as to appear almost 2-dimensional to most biological processes on a semi-quantum mechanical level. This means that these frequencies can be seen as "scalar" in their possible interaction with specific brain processes.

What these frequencies really are, however, are actual holograms of specific thoughts. They have a third component of detail (much like the patented P300 wave). This means that a hybrid form of brain fingerprinting is now possible. And, once these "images" are stored (usually in a very sophisticated super-cooled computer), similar responses can be fed back to the person, inducing virtually any state desired (via entrainment protocols).

Silent Sound Technology - "S-quad"

Silent (converted-to-voice FM) hypnosis can be transmitted using a voice frequency modulator to generate the "voice." It is a steady tone, near the high end of hearing range (15,000 Hz), plus a hypnotist's voice, varying from 300 - 4,000 Hz. These two signals are frequency modulated. The output now appears as a steady tone, like tinnitus, but with hypnosis embedded. The Fmvoice controls the timing of the transmitter's pulse. Each vertical line is one short pulse of microwave signal at a frequency to which the human brain is sensitive. Timing of each microwave pulse is controlled by each down-slope crossing of the voice wave (Sharp's method, 1974). Then the brain converts the train of microwave pulses back to inaudible voice. There is no **conscious defense** possible against this form of hypnosis.

Ordinary radio and TV signals use a smooth waveform called a 'sine' wave. This wave signal cannot normally penetrate the voltage gradient across the nerve cell walls. Radar signals consist of very short and powerful pulses of sine wave type signals, and can penetrate the steep voltage gradient across these nerve cell walls (Allan H. Frey, Cornell University, 1962).

Differences in osmosis of ions (dissolved salt components) cause a small voltage difference across cell walls. When a small voltage appears across a very tiny distance, the change in voltage is called very 'steep.' It is this steep gradient that keeps normal radio signals from throwing us into convulsions. The mind-altering mechanism is based on a subliminal carrier technology: the Silent Sound Spread Spectrum (SSSS), sometimes called "S-quad" or "Squad".

It was developed by Dr Oliver Lowery of Norcross, Georgia, and is described in US Patent #5,159,703, "Silent Subliminal Presentation System", dated October 27, 1992. The abstract for the patent reads:

"A silent communications system in which nonaural carriers, in the very low or very high audio-frequency range or in the adjacent ultrasonic frequency spectrum are amplitude- or frequency-modulated with the desired intelligence and propagated acoustically or vibrationally, for inducement into the brain, typically through the use of loudspeakers, earphones, or piezoelectric transducers. The modulated carriers may be transmitted directly in real time or may be conveniently recorded and stored on mechanical, magnetic, or optical media for delayed or repeated transmission to the listener."

According to literature by Silent Sounds, Inc., it is now possible, using supercomputers, to analyze human emotional EEG patterns and replicate them, then store these "emotion signature clusters" on another computer and, at will, "silently induce and change the emotional state in a human being".

Edward Tilton, President of Silent Sounds, Inc., says this about S-squad in a letter dated December 13, 1996:

"All schematics, however, have been classified by the US Government and we are not allowed to reveal the exact details... .. we make tapes and CDs for the German Government, even the former Soviet Union countries! All with the permission of the US State Department, of course... The system was used throughout Operation Desert Storm (Iraq) quite successfully."

"Induced Alpha to Theta Biofeedback Cluster Movement" is an output from "the world's most versatile and most sensitive electroencephalograph (EEG) machine". This device has a gain capability of 200,000, as compared to most other EEG machines (with gain capability of 50,000). It is software-driven by the "fastest of computers" using a noise nulling technology similar to that used by nuclear submarines for detecting small objects underwater at extreme range. The purpose of all this high technology is to plot and display a moving cluster of periodic brainwave signals. The illustration shows an EEG display from a single individual, taken of left and right hemispheres simultaneously. This technology is very similar to that used to generate P300 waves.

Cloning the Emotions

By using these computer-enhanced EEGs, scientists can identify and isolate the brain's lowamplitude "emotion signature clusters," synthesize them and store them on another computer. In other words, by studying the subtle characteristic brainwave patterns that occur when a subject experiences a particular emotion, scientists have been able to identify the concomitant brainwave pattern and can now duplicate it.

"These clusters are then placed on the Silent Sound[™] carrier frequencies and will silently trigger the occurrence of the same basic emotion in another human being!"

Regarding system delivery and applications, there is a lot more involved here than a simple subliminal sound system. There are numerous patented technologies that can be piggybacked individually or collectively onto a carrier frequency to elicit all kinds of effects. There appear to be two methods of delivery with the system. One is direct microwave induction into the brain of the subject, limited to short-range operations. The other, as described above, utilizes ordinary radio and television carrier frequencies. Far from necessarily being used as a weapon against a person, the system does have limitless positive applications. However, the fact that the sounds are subliminal makes them virtually undetectable and possibly dangerous to the general public. In more conventional use, the Silent Sounds Subliminal System might utilize voice commands, e.g., as an adjunct to security systems. Beneath the musical broadcast that you hear in stores and shopping malls may be a hidden message that exhorts against shoplifting. And while voice commands alone are powerful, when the subliminal presentation system carries cloned emotional signatures, the result is overwhelming.

Free-market uses for this technology are the common self-help tapes, positive affirmation, relaxation and meditation tapes, as well as methods to increase learning capabilities. But there is strong evidence that this technology is being developed toward global mind control. The secrecy involved in the development of the electromagnetic mind-altering technology reflects the tremendous power that is inherent in it. *To put it bluntly, whoever controls this technology can control the minds of men - all men.*

There is evidence that the U.S. Government has plans to extend the range of this technology to envelop all peoples, all countries. This can be accomplished, and is being accomplished, by utilizing the nearly completed HAARP project for overseas areas and the GWEN network now in place in the U.S. The U.S. Government denies all this. Dr Michael Persinger is a Professor of Psychology and Neuroscience at Laurentian University, Ontario, Canada. His work and findings indicate that strong electromagnetic fields can and will affect a person's brain.

"Temporal lobe stimulation can evoke the feeling of a presence, disorientation, and perceptual irregularities. It can activate images stored in the subject's memory, including nightmares and monsters that are normally suppressed."

Mind Reading Devices

Alan Yu, a former lieutenant colonel in the Taiwan National Defense Department, says that the United States has not only developed an operational mind control machine, but has also distributed models for use by allied countries. Yu states that such machines pose a great threat to human rights and the American way of life. He calls the device the "Mind Reading Machine"

(Mind Machine) .

Yu writes that there are two sources of information detailing the existence of the Mind Reading Machine. The first evidence: In the 1970s, The South China Morning Post reported that the University of Maryland had invented a Thought Reading Machine. The original purpose of this invention was to help authorities investigate severe car accidents. It was to be used on people who were severely injured to get their accounts of how the accidents occurred. In the spring of 1984, Yu was a lieutenant colonel serving in the National Defense Department of Taiwan. At that time, Yu read a classified document from the department that he serviced under. The document said the Military Police Department of Taiwan had purchased several of the Mind Reading Machines from the United States (In Taiwan, it was called Psychological Language Machine). The document was a request to the United States for parts to repair several malfunctioning machines. The machine allegedly uses microwaves to deliver spoken messages directly to the human brain, as well as using radio waves to hypnotize people or change their thoughts. Yu reports that before he left, this machine had become the most effective weapon for the security departments of Taiwan. In 1993, Defense News announced that the Russian government was discussing with American counterparts the transfer of technical information and equipment known as "Acoustic Psychocorrection."

The Russians claimed that this device involves the transmission of specific commands via static or white noise bands into the human subconscious without upsetting other intellectual functions. Demonstrations of this equipment have shown encouraging results after exposure of less than one minute and have produced the ability to alter behavior on unwilling subjects.

A US Department of Defense medical engineer claimed in 1989 that the U.S. and Israel had regularly used microwaves to condition and control the minds of Palestinians.

Unclassified ELF-Type Weapons

Remote physical manipulation:

Not covered in this document. At time of writing, that technology appears to be classified.

Transmission methods for neuro-effective signals:

This includes pulsed microwave (i.e., like radar signals) and ultrasound and voice-FM (transmitted through the air). Also known as "Synthetic Telepathy."

While transmission of speech, dating from the early 1970s, was the first use of pulsed microwave, neuro-effective signals can now cause many other nerve groups to become remotely actuated. That specific technology is classified.

Pavlovian hypnotic triggers:

A [Pavlovian] hypnotic trigger is a phrase or any sensory cue that the subject is programmed to involuntarily act in a certain way. MKULTRA survivors can still be triggered from programming done decades ago. One of the main goals of the institutional/drug/child abuse phases of the CIA MKULTRA atrocities (1950's through 1970's) was to implant triggers using a "twilight state" (half-conscious) medication and tape-recorded hypnosis. The ultimate goal was to have the acting out of Pavlovian triggers erased from the victim's memory. These triggers are now planted using either of the above two transmission methods, but with the words moved up just above (or near the top of) the audible frequency range. The result is that hypnotic triggers are planted without the subject being aware. This technology was used in the Gulf War as "Silent Sound."

Through-wall surveillance methods:

This includes top end of microwave (near infrared), and the so-called "millimeter wave" scanning. This method uses the very top end of the microwave radio signal spectrum just below infrared. To view small objects or people clearly, the highest frequency that will penetrate non-conductive or poorly-conductive walls is used. Millimeter wave scanning radar can be used in two modes: The first is passive (no radiated signal) and uses background radiation already in the area to be scanned. It is totally undetectable. The active system uses a (low power millimeter wave) "flashlight" attached to the scanner.

Thought reading:

Thought reading can be classed as a form of "through wall surveillance" technology. In the unclassified and commercial realms, it is called thru-skull microwave reading, and magnetic skull-proximity reading.

Brain entrainment:

This involves moods and sleep states, the reverse of biofeedback. The low frequency electrical brain rhythms are characteristics of various moods and states of sleep. Not only can they now be read out using biofeedback equipment or EEG machines, but also radio, sound, contact electrodes, or flashing lights. These moods and sleep states can be generated or at least encouraged using brain entrainment devices. Brain entrainment signals cannot carry voice, which is a much higher frequency range. Brain entrainment can, however, be used to "set up" a target to make him/her more susceptible to hypnosis.

Implantation: (no longer required)

Specific ELF Weapons**Ultrasound and Voice-FM:**

Main advantage in mind control work is that it can carry verbal hypnosis, more potent than simple biorhythm entrainment. An example is Chicago's Airport Terminal connection tunnels and their "Keep Walking." Steady tone, near the high end of hearing range (15,000 Hz). Hypnotist's voice, varying from 300 to 4,000 Hz, fed into a frequency modulator, where the voice controls the frequency. Output is now a steady tone, sounding like tinnitus, but with hypnosis embedded. While the brain can hear and understand, the ear only hears a "tone" or a "rush."

Most Common Known ELF Effects:

Here is a list of most of the common effects. It is intended to show how the various induced stress effects are broken down. Indent levels are used to show categories and sub-categories:

Invasive At-a-Distance Body Effects (including mind):**Sleep deprivation and fatigue:**

Silent but instantaneous application of "electronic caffeine" signal, forces awake and keeps awake Loud noise from neighbors, usually synchronized to attempts to fall asleep Precision-to-the-second "allowed sleep" and "forced awakening"; far too precise and repeated to be natural Daytime "fatigue attacks", can force the victim to sleep and/or weaken the muscles to the point of collapse

Audible Voice to Skull (V2S):

Delivered by apparent at a distance radio signal Made to appear as emanating from thin air Voices or sound effects only the victim can hear

Inaudible Voice to Skull (Silent Sound):

Delivered by apparent at a distance radio signal; manifested by sudden urges to do something/go somewhere you would not otherwise want to; silent (ultrasonic) hypnosis presumed Programming hypnotic "triggers" - i.e., specific phrases or other cues which cause specific involuntary actions

Violent muscle triggering (flailing of limbs):

Leg or arm jerks to violently force awake and keep awake Whole body jerks, as if body had been hit by large jolt of electricity Violent shaking of body; seemingly as if on a vibrating surface but where surface is in reality not vibrating

Precision manipulation of body parts (slow, specific purpose):

Manipulation of hands, forced to synchronize with closed-eyes but FULLY AWAKE vision of previous day; very powerful and coercive, not a dream Slow bending almost 90 degrees BACKWARDS of one toe at a time or one finger at a time Direct at-a-distance control of breathing and vocal cords; including involuntary speech iv. Spot blanking of memory, long and short term

Reading said-silently-to-self thoughts:

Engineered skits where your thoughts are spoken to you by strangers on street or Real time reading sub vocalized words, as while the victim reads a book, and BROADCASTING those words to nearby people who form an amazed audience around the victim

Direct application of pain to body parts:

Hot-needles-deep-in-flesh sensation
Electric shocks (no wires whatsoever applied)
Powerful and unquenchable itching, often applied precisely when victim attempts to do something to expose this "work"
"Artificial fever", sudden, no illness present v. sudden racing heartbeat, relaxed situation

Surveillance and tracking:

Thru-wall radar and rapping under your feet as you move about your apartment, on ceiling of apartment below Thru-wall radar used to monitor starting and stopping of your urination - water below turned on and off in sync with your urine stream Loud, raucous artificial bird calls everywhere the victim goes, even into the wilderness

Invasive Physical Effects at a Distance (non-body):

Stoppage of power to appliances (temporary, breaker ON)
Manipulation of appliance settings
Temporary failures that "fix themselves"
Flinging of objects, including non-metallic
Precision manipulation of switches and controls
Forced, obviously premature failure of appliance or parts

External Stress-Generating "Skits":

Participation of strangers, neighbors, and in some cases close friends and family members in harassment:

Rudeness for no cause

Tradesmen always have "problems", block your car, etc.

Purchases delayed, spoiled, or lost at a high rate

Unusually loud music, noise, far beyond normal

Break-ins/sabotage at home:

Shredding of clothing

Destruction of furniture

Petty theft

Engineered failures of utilities

Sabotage at work:

Repetitive damage to furniture

Deletion/corruption of computer files

Planting viruses which could not have come from your computer usage pattern

Delivered goods delayed, spoiled, or lost at a high rate

Spreading of rumors, sabotage to your working reputation

Direct sabotage and theft of completed work; tradesmen often involved and showing obvious pleasure

In summary, the effects include:**To the Brain:**

Forced memory blanking and induced erroneous actions

Induced changes to hearing. Both apparent direction and volume, and sometimes even content Reading and broadcasting thoughts.

"How can that lady talk with her mouth closed?"

Vivid controlled dreams.

Forced waking visions: some synched with forced body motion

Microwave hearing

Sleep prevention each night, at exactly the same time (for weeks)

To the Face:

Sudden violent itching inside eyelids

Forced manipulation of airways, including externally controlled forced speech "Transparent eyelids"

Artificial tinnitus (ringing in ears)

Forced movement of jaw and clacking of teeth

To the Body:

Wilding racing heart without cause

Remotely induced violent no-rash itching

Forced nudging of arm during delicate or messy work causing injury or spills

Forced "muscle quaking" on large muscles on the back or other

unexplainable vibrations and cases of repeated fresh watch batteries

dying then forced precision manipulation of hands. Sometimes synched to the forced waking visions.

Special attention to genital area: itching, forced orgasm, intense pain, "hot needles"

Intense general pain in the legs, like stings.

21. Brain Transmitters



What They Are and How They Are Used

Mediaeko
Investigative Reporting Group
1996 Reprint
 REVISED

Radio Implants and Remote-Controlled Humans

Brain Transmitters **What They Are and How They Are Used**

Doctors in Sweden

began placing brain transmitters in the heads of anesthetized patients without the persons' knowledge in about 1960. The insertion was conducted through the nostrils and took only a couple of minutes to perform.

Implanted devices can remain in a person's head for life. The energy to activate the implants is transmitted by way of radio waves. Professor José Delgado wrote about the technology in *Physical Control of the Mind* in 1969.

The Technology and Its Possibilities

Brain transmitters have been thought to be impossible by the majority of people and have been relegated to science fiction. The fact is that scientists developed the technology into reality at least forty years ago.

By means of two-way radio communication called telemetry, or remote control, one can send wavelengths round trip to a brain transmitter in a person's head. The wavelengths flow through a person's brain, then return to a computer where all aspects of a human being's life are uncovered and analyzed.

To allow brain waves, measured by electroencephalograph (EEG), to be analyzed by a computer instead of through a printout offers new possibilities of interpretation. The charting of mental thoughts, vision, hearing, feelings, and behavioral reactions can lead to an analysis of the foundation of personality. It allows one to study the psyche more completely. In addition, one can follow chemical reactions, observe patterns of neurons, or follow an illness or disease and analyze it at an earlier stage of development. All of the above and much more can be discovered with bio-medical telemetry.[2] During the 1960s, brain transmitters as small as a half of a cigarette filter made it possible for doctors to implant them in patients easily and without surgery.[3]

Two-way radio communication throughout the world to the brain was possible by the late 1950s. This was done in many ways. For example, vocal messages could be sent by radio waves to receivers placed in the head, where a person with an attached transmitter could answer directly to a central location with his thoughts, by brain waves data (EEG) carried with radio signals.[4] Distances were not a problem, since radio waves could travel globally at the speed of light.



Implanted brain transmitters (biotelemetry devices) have been reported since the 1960s: "Two patients instrumented for intracerebral radio stimulation and recording engage in spontaneous activities (one is playing the guitar) in the psychiatric ward in the presence of the doctor (VM). Explorations of the brain can be performed for as long as necessary without disturbing the patients." — J.M.R. Delgado, V. Mark, W. Sweet, F. Ervin, G. Weiss, G. Bach-y-Rita, and R. Hagiwara, "Intracerebral Radio Stimulation and Recording in Completely Free Patients," *The Journal of Nervous and Mental Disease*, 1968, October; 147(4): pages 329-40.

Liquid crystals which are injected directly into the bloodstream and fasten themselves to the brain have been developed in the last ten years. It works on the same principle as the usual transmitters and uses the same technology and contains the same possibilities.[5] [6]

How It Began - Experiments with the Brain

As early as the 1920s, European scientists made discoveries which paved the way for future development of brain stimulation. The Swiss W. R. Hess could identify 4,000 different places in the brain's hypothalamus, which are in direct contact to certain physical and mental reactions. By stimulating specific points in the brain by an electrical current, the stimulation of one point of the brain could bring about aggressive reactions, while the stimulation of another point could bring about calmness. Through electrical currents to the brain, Dr. Hess could change peoples' personalities, bring about feelings of happiness or sadness, hunger or satisfaction, etc. All of this was achieved over seventy years ago.

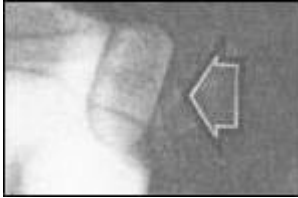
To the Present and Victims for Life

Brain transmitters, also called electrodes, stimoceivers, and endoradiosondes, can control the brain and transmit data. They can be used to influence people to conform to a political system. They can be applied to remotely monitor and control human beings to serve as agents. The technology exists and is being utilized. The devices usually remain in a person's head for life.

"Autonomic and somatic functions, individual and social behaviors, emotional and mental reactions may be evoked, maintained, modified, or inhibited, both in animals and in man, by electrical stimulation of specific cerebral structures. Physical control of many brain functions is a demonstrated fact. ... It is even possible to follow intentions, the development of thoughts, and visual experiences," wrote Dr. José Delgado in the book *Physical Control of the Mind* in 1969. At that time Dr. Delgado was a Professor of Physiology at Yale University, where he developed techniques for electronically and chemically influencing the brain. He has published more than two hundred scientific works and is a well-known authority in neurology and behaviorism.

In the preface to the book, it is written that Dr. Delgado, "... shows how, by electrical stimulation of specific cerebral structures, movements can be induced by radio command, hostility may appear or disappear, social hierarchy can be modified, sexual behavior may be changed, and memory, emotions and the thinking process may be influenced by remote control." [7]

It is possible to change people, create illness, modify opinions, and dull or activate the senses by penetrating centers of the brain with radio waves. People then obey controllers instead of their own natural choices. Monitoring of individuals' brain activity can instantly reveal all private experiences and observations of others.[8]



"This is the second implanted transmitter; this device appeared under rather unusual circumstances on 10th March 1972, when I became tranquilized in the hotel where I was temporarily lodging. This implantation preceded a period of prolonged torture with personality-altering radio signals 10 - 20 hours a day and they started communicating directly with my brain. It was then I realized that they could discern my thoughts and, indeed, experience my entire range of cognitive activity. ... The picture was taken at Karolinska Hospital where all radiographers deny that any foreign object can be identified in this picture. However, there are a number of overseas physicians who testify the obvious fact, that several transmitters can be seen quite clearly." – Robert Naeslund, INMC, Open Letter, Stockholm, Sweden, May 1993, page 32.

Dr. Robert G. Heath, of Tulane University, has implanted as many as 125 electrodes in a human being's brain. In his experiments, he discovered that he could control his patients' memories, sexual arousal, fear, pleasure, and cause hallucinations.

Overriding Proof Against the Hospitals

"In response to your most recent letter regarding the roentgen films, I can only confirm that some foreign objects, most likely brain transmitters, have been implanted at the base of your frontal brain and in the skull," wrote Professor Petter Aaron Lindstrom from California to one of his Swedish patients. The patient was a victim of an implantation of a brain transmitter over twenty-five years ago. Dr. Lindstrom, who taught at the University of California, San Diego, added, "There is no excuse for doctors to implant brain transmitters in people's heads."

There is complete evidence that Södersjukhuset, Karolinska, Nacka, and Sundsvall hospitals, among others in Sweden, have implanted brain transmitters without the permission or knowledge of the patients for many decades.

Mental Patients Utilized

Investigations at different mental hospitals in Sweden have shown that a great number of patients out of fifty interviewed, thought themselves to be victims of long-term medical experiments. A number of these patients were actually in need of mental care due to the experiments. There were also many at the hospitals who were forcibly placed there because they had declared that a transmitter had been implanted in their heads during an operation, or in conjunction with admittance to the mental hospital.

Checks were made of all groups with electronic devices which confirmed that there were radio waves traveling from brain transmitters in many patients.[9]

Interviews with patients were done at Långbro Hospital, Beckomberga Hospital, as well as at Karolinska Hospital Psychiatric Clinic.

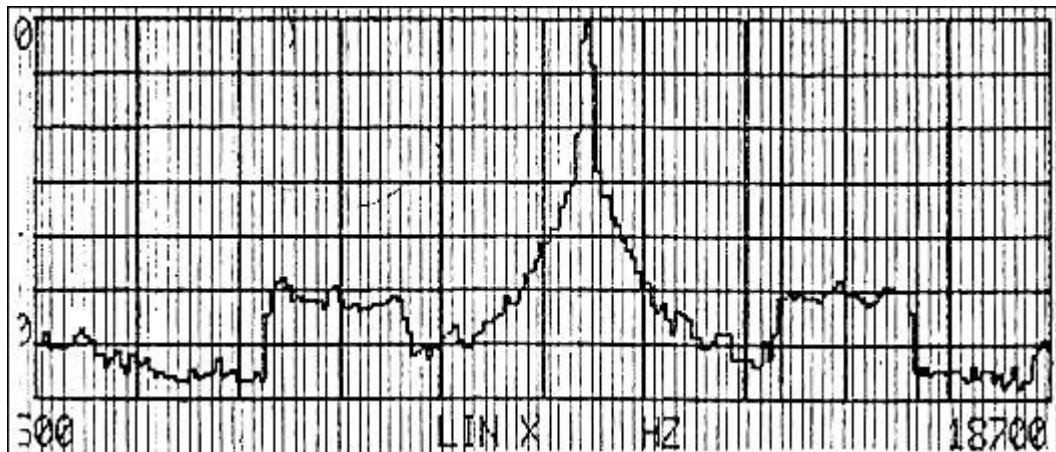
The radio waves which pass through the brain are not necessarily registered by one who has a brain transmitter. Only when the effect is greatly increased, for example when experiments are performed, is it possible for the victim to detect them.



"This is the third transmitter placed in my head and the first which was embedded in my brain. Without doubt it was implanted while being detained by the police in Stockholm 1973; this was my first period of custody and afterwards I underwent considerable personality modification, a process which had already begun in 1967 but accelerated rapidly towards criminality after the implantation of the second transmitter." — Robert Naeslund, INMC, Open Letter, Stockholm, Sweden, May 1993, page 32.

One of the letters from P.A. Lindstrom, M.D., to his patient that is an implants victim.

Electronic Measurements



This picture shows the frequencies 18.5 - 18.7 kHz which were sent from a brain transmitter. The chart was created by a printer connected to a radio frequency analyzer computer during measurements from a transmitter in a person's skull.

While measuring other persons, the wavelengths were counted at similar values.

Long wavelengths are commonly used since they work over vast distances at the speed of light, and the frequencies are often between 15 - 35 kHz.[10]

The radio waves are called "frequency shift" signals and can flow within a certain wavelength area. They do not occur in a decided frequency, but rather through a special modulation, the radio waves identity. The bandwidth was 150 Hz and the effect in all measurements was between 1 - 10 microvolts.

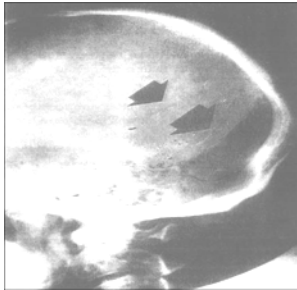
Measurements were done with the following electronic devices:

Hewlett & Packard Spectrum Analyzer 3585 A
 Roedre & Schwarts VLF-HF Receiver EK 070
 Marconi Spectrum Analyzer
 Dynamics SD 375 Spectrum Analyzer
 Nicolets Radio Frequency Analyzer Computer

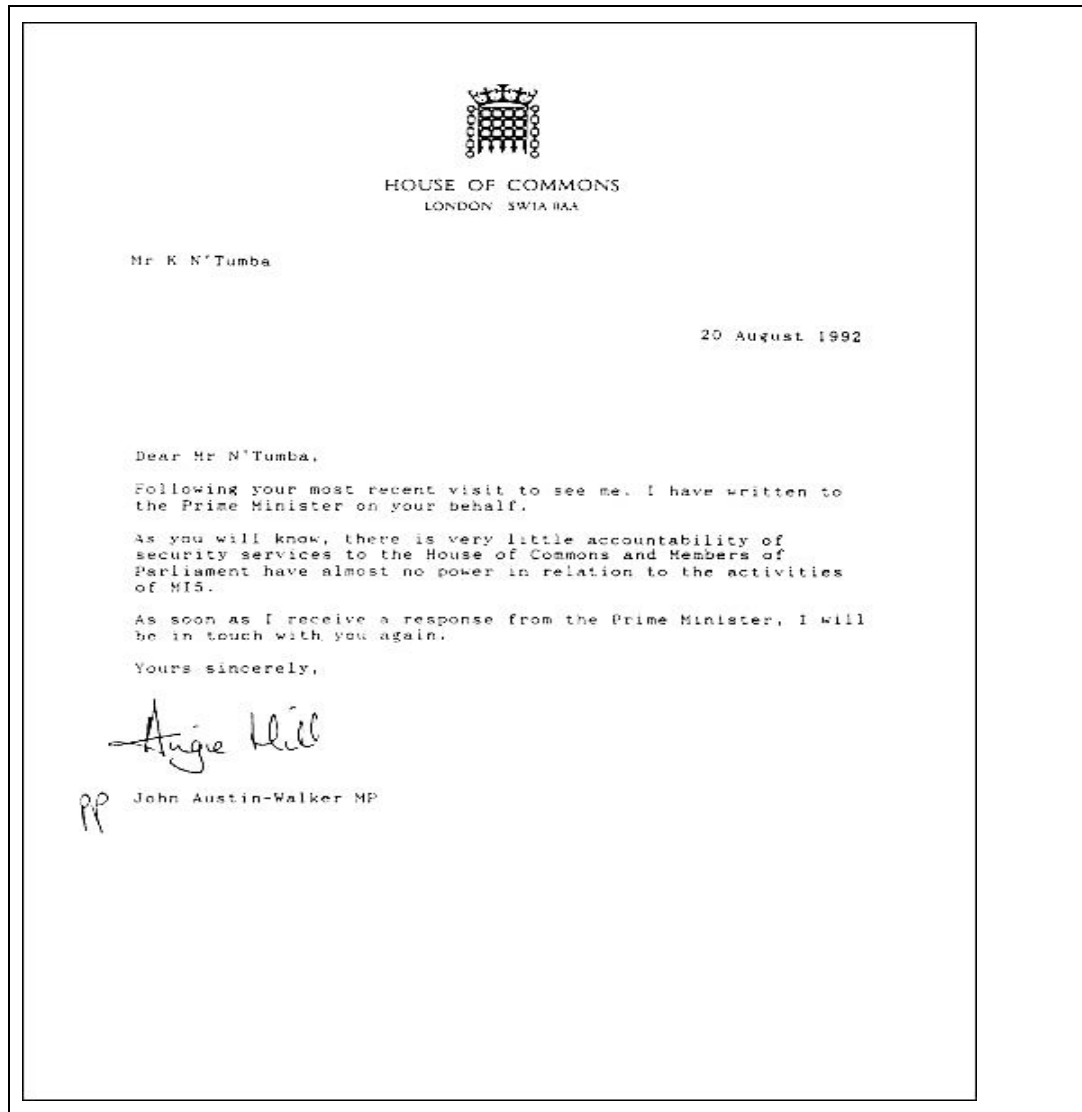
Court Trials in Canada

were heard against a number of hospitals in Montreal in 1989. The hospitals were accused of carrying on long painful experiments with patients which began in the 1950s. One of Canada's most honored doctors, Ewen Cameron, Head Doctor at Royal Victoria Hospital and Allen Memorial Institute, worked on assignments from the Secret Police that ordered experiments with, among other things, brain transmitters.[11]

"Furthermore, it can be seen that electrodes placed in the occipital lobe are blocking the blood flow behind their delimitation where the oxygen depletion is caused and this is seen as well in his frontal brain just above the implanted transmitter. Among the changes caused by the frequencies affecting his brain, the reduced oxygen levels have induced an alteration of neurological functions, and impaired cognitive abilities including that of memory. Moreover he [Mr. N'Tumba] has obviously been anesthetized without his knowledge so that this implantation could be performed. ... The x-ray examination was performed at Brook Hospital Main, September 16, 1992." – INMC, Letter to British Prime Minister John Major, Stockholm, Sweden, October 9, 1992.



"... a meeting between Mr. John Austin-Walker, Member of Parliament, and a victim of mind control, impressed on him the importance of pursuing investigations into the matter ..." – INMC, Letter to British Prime Minister John Major, Stockholm, Sweden, October 9, 1992, page 1.



Many Others Cry for Help

Doctors at the World Health Organization's (WHO) office in Copenhagen say that many Swedes write to them, stating that they have been exploited for hospital experiments. Many say that devices must have been implanted in their heads.

The United Nations' information office in Copenhagen also says that upset residents of Sweden have contacted them and have sought help as victims of hospital experiments.

Amnesty International in Stockholm and Copenhagen tell a similar story, as well as the Citizens' Rights Movement, representatives of the Green Party of Sweden, and a number of female members of the Swedish Parliament.

Those who contact the National Swedish Board of Health and Welfare (Socialstyrelsen) about this issue are sent to Department Ptp (formerly HS4 and SN3). Then they are informed that they are psychologically ill and that they run the risk of being admitted to a mental hospital if they continue to talk about a device in their heads. Additionally, they are told that brain transmitters do not exist.

Swedish Board of Health and Welfare

The person Dr. Lindstrom later helped had by 1977 written to authorities in Sweden and explained to them to what he had been subjected. Among those he wrote to was the General Director of the Board of Health and Welfare.

Declared Mentally Ill

Dr. Annmari Jonson at the Board of Health and Welfare referred to the letter a year later when she explained, "He intensely maintains everything which he had written to the Board of Health and Welfare. He exhibits, in this way, obvious misconceptions and points clearly to the need for psychiatric examination."

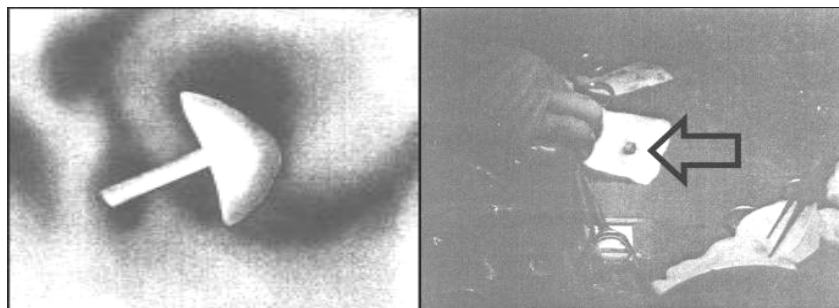
The examination was conducted in 1978 by Dr. Janos Jez, who wrote:

"He says that he is convinced that a device was applied in his head during an operation at Södersjukhuset. He ought to be considered dangerous if this pattern of misconceptions cannot be erased; and if he then begins to doubt his ideas and thereafter begins to have insight into his illness. He should therefore be committed to an asylum."

Five years later Dr. Lindstrom wrote, "... I can only confirm that some foreign objects, most likely brain transmitters, have been implanted at the base of your frontal brain and in the skull. ... I fully agree with Lincoln Lawrence who in his book on page 27 wrote: 'There are two particularly dreadful procedures which have been developed. Those working and playing with them secretly call them R.H.I.C. and E.D.O.M.—Radio Hypnotic Intracerebral Control and Electronic Dissolution of Memory.'"

The patient wrote to both the doctors and the Board of Health and Welfare's General Director, Barbro Westerholm, and included a copy of Dr. Lindstrom's declaration. However, none of them desired to answer, which indicates both the Board of Health and Welfare's attitude towards the issue, and even the doctors' guilt.[12]

What Brain Transmitters Look Like



The above photographs are of brain transmitters. The above one on the left is an enlargement taken from an X-ray. The above picture on the right was taken at an operation to remove the implant. The above one on the right shows the shape of the most usual type of brain transmitter. It looks like a bullet and is put into place through the nose. This device was inserted during an operation at Södersjukhuset in Stockholm by Dr. Curt Strand at the end of the 1960s, without the knowledge or consent of the patient. It was placed just underneath the brain. This implant is the same shape on both sides and its actual length is 16 millimeters (mm) or .62 inch, with a width of 7 mm (.27 inch). The above picture to the left shows a brain transmitter which has the shape of a mushroom. It was implanted through a surgical opening in the forehead. Its actual size is 7 mm (.27 inch) across the head, while the stem is 4 mm (.16 inch). Most implant victims are unaware of the devices because they were sedated during the procedures. Then they are amnesic, monitored, and controlled. However there are some disclosures.



"This is the fourth transmitter in my head and it was inserted in connection with an appearance at Nacka Police Station, just outside Stockholm, on 26th November 1975, ostensibly for interrogation. I was locked up in a cell, but after a short while I fell into a deep sleep from which I emerged to an entirely new life. It is during these hours when the transmitter was implanted, and when, I awoke I had a searing high frequency signal at about 100 db in my skull. This was to plague me for about 16 hours a day for the past eight years and completely transform my life. It depressed the functional capacity of my right cerebral hemisphere and altered my personality, behavior, and abilities as if they no longer were part of myself." – Robert Naeslund, INMC, Open Letter, Stockholm, Sweden, May 1993, page 32.

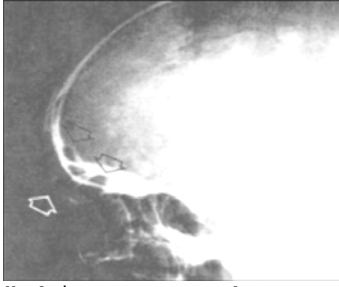
Doctors Warn

Dr. Robert J. Grimm of the Good Samaritan Hospital in Portland, Oregon, stated in March 1974 at a doctor's symposium in California, that he viewed brain control and influencing the brain with radio waves was of similar importance as to the debate concerning the detonation of the first atomic bomb in Hiroshima. He also asked, "Do scientists have the right to pursue projects potentially destructive of human life, and in this era, destructive of the individual?"

And Protest to the Swedish Government

The chairman of an internationally influential scientific organization in Canada, Dr. Andrew Michrowski, wrote in 1985 to the Swedish government and sought an answer about Sweden's obvious encroachment of human rights. He saw clear evidence that Swedish doctors implanted brain transmitters in patients, and referred to the Declaration of Human Rights signed by Sweden.

The Swedish government did not reply.



"This X-ray shows three transmitters in the frontal lobes. All of these were implanted on different occasions by the Swedish police. The detainee had been put to sleep unaware, as usual, at the police remand center in Stockholm. A doctor writes in his statement concerning this X-ray:

'...Later I received your additional skull film which clearly demonstrated some implanted transmitters, one inside the brain and two probably just underneath the brain.'

The upper arrow indicates the object lodged completely within the brain. All these transmitters were inserted through the nostrils and implanted into the frontal lobes in the vicinity of the upper opening of the nasal passage." – Lennart Lindquist, Evamarie Taylor, and Robert Naeslund, *Cybergods*, Stockholm: Gruppen, 1996, page 11.

Another medical opinion about X-rays, "... taken at Karolinska Hospital where all radiographers deny that any foreign object can be identified." – INMC, Open Letter, Stockholm, Sweden, May 1993, page 32.

 UNIVERSITY HOSPITAL University of California Medical Center, San Diego		
PROGRESS RECORD (Typewriter Copy)		
		Source Request Date
TO WHOM IT MAY CONCERN: Recently I reviewed a skull film marked: NASLUND, ROBERT and dated 26-11. 1931. That film shows a couple of unusual foreign bodies at the base of the skull, possibly some form of brain transmitters. However, I have not examined or talked to this patient and do not know the pertinent history. San Diego, CA October 6, 1933 <i>Ingmar Wickbom</i> Ingmar Wickbom, M.D. Professor of Radiology U.C.S.D.		

FOA Educates Doctors

Since the 1960s, the Swedish Defense Research Institution (FOA) has educated hospital doctors, mostly surgeons and psychiatrists, regarding brain transmitters and bio-medical telemetry.

One of the books which was used twenty-five years ago at FOA's Department 3 in education had the title Bio-Medical Telemetry (1968), written by Dr. Stuart Mackay. Dr. Mackay wrote in the introduction that, "The purpose of this book is to introduce a wide segment of the scientific community to the rapidly developing field of bio-medical telemetry. It presents to physicians, engineers, and scientists information about the possibilities of different telemetric methods. It gives biologists a background in electronics to enable them to choose equipment."

The former head of FOA, Lars-Erik Tammelin, and the following director, Bo Rydbeck, are medical doctors with advanced knowledge in biology.

When Bo Rydbeck became head of the FOA in 1985, he said in an interview in the newspaper Dagens Nyheter that, "Among the current assignments, more intensive effort will be put into information technology." Which includes both telemetry and brain transmitters as essential parts.[13]

Dr. Mackay continued in his introduction, "Among the many telemetry instruments being used today [1968] are miniature radio transmitters that can be swallowed, carried externally, or surgically implanted in man or animals. Recent developments include pressure transmitters small enough to be placed in the eye, ultrasonic and radio units for free-swimming dolphins, units for tracking wild animals, and pill-sized transmitters of many designs and functions that can operate continuously for several years. The scope of observations that can be made is too broad to more than hint at with a few examples. ... The possibilities are limited only by the imagination of the investigator."

Dr. Stuart Mackay has worked as a Professor at the University of California, Berkeley, and at many foreign universities. His main fields are Medicine and Biology.

Computers and the Brain

"Dr. Delgado is optimistic that with the increasing sophistication and miniaturization of electronics, it may be possible to compress the necessary circuitry for a small computer into a chip that is implantable subcutaneously. In this way, the new self-contained instrument could be devised; capable of receiving, analyzing and sending back information to the brain, establishing artificial links between unrelated cerebral areas, functional feedbacks, and programs of stimulations contingent on the appearance of predetermined wave patterns," wrote Samuel Chavkin in *The Mind Stealers* (1978), a book about psychosurgery and mind control. Samuel Chavkin was the founder and chief editor of the Science and Medicine Publishing Company, which publishes periodicals concentrating on medical topics. In the preface to the book it is stated that, "Telemetry for the surveillance of every citizen is on the drawing boards. Chavkin's prediction that mind-control techniques could become standard equipment of governments, prisons, and police departments is backed by forceful documentation." [14] Biotelemetry systems that remotely "mind read" and "mind control" have existed for decades. Brain transmitters measure EEG and send data to computers that instantly translate it into words. Implants also deliver electric shocks that control a brain and behaviors. The devices are now less than 1 mm (.04 inch) in diameter.

Dr. Delgado conducted experiments in the early 1960s that placed an electrode on the eardrum (middle ear) of a cat. The device picked-up people's conversations and transmitted them to a receiver for listening. According to Victor Marchetti, co-author of *The CIA and the Cult of Intelligence* (1974), the CIA attached a tiny radio implant to a cat's cochlea (inner ear) for surveillance purposes.

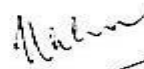
A few years after Delgado's implanted "bug" experiments, Dr. Ralph Schwitzgebel developed a miniature radio receiver so that a therapist could communicate with his subject.

Tiny combination microphone-transceiver-speakers are implanted inside unsuspecting people's ears. The instruments transmit nearby conversations and deliver audio commands. Individuals are conditioned to obey the directives, though they are usually unaware of the voices.[15]

"X-ray photograph taken the day following the operation [August 12, 1987, St. Carolus Hospital, Ji Salemba, Djakarta], the 1/2 cm [.20 inch] deep area of branded cortex can be identified, as can the implanted transmitter." — INMC, Open Letter, Stockholm, Sweden, May 1993, page 15.



Report for an x-ray examination conducted over three and a half years after an August 12, 1987 brain implant victimization.

 Sanjeevan Medical Centre		
S. No.	DEPTT. OF RADIOLOGY	Date - 8.4.91.
Name	MR ROBERT NASLUND	Age
		Referred by
REPORT		
<u>X RAY SKULL AP LAT FOR COMPARISON</u>		
The skiagram reveal a radioluscent area with irregular and hazy margins behind the frontal sinuses which is marked by arrows and suggests break down. In comparison to previous skiagrams this area appears to have regressed with the borders not so well defined. The umbrella shaped object of metallic density seen in earlier skiagrams of the patient appears not so distinct but is seen within the destructed area.		
 DR NALIN SACHDEV RADIOLOGIST.		

In 1985

an advertisement placed by the Swedish Citizens' Rights Movement in over thirty daily and weekly publications stated that doctors in larger hospitals in Sweden inserted brain transmitters in anesthetized patients during operations. At the same time, a letter signed by fifty people was sent to the Attorney General.

The Attorney General Questioned

Those who had signed the letter had read through material which showed that the reality of brain transmitters is a fact. The signers demanded an answer from the Attorney General on whether the implantation of brain transmitters is a crime or not. Those who signed the letter were representatives from different human rights groups, the Swedish Peace Movement, professors from, for example, the Royal School of Technology, lawyers, and others.

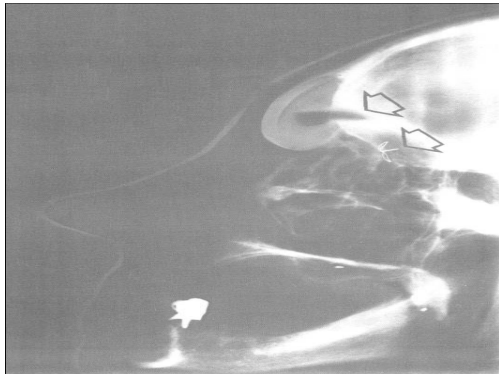
The State Says Yes to Brain Transmitters

The Attorney General did not reply to the letter. Instead, he sent it to the Attorney District (Överåklagaren), who said that this issue should not be considered a crime. Decision from May 15, 1985, Överåklagaren Register number AD II 76-85.

However, of course it is one of the harshest crimes which the state can commit; to deny the right of the individual to his or her own brain, and to inner peace without the interference of government authorities. Since Sweden signed the Human Rights Act, it must follow the act's assumptions. In any case, it means that a new relationship has been created between the state and the people of the country.

"There are similar signs, here and now, like in Germany during the 1930s, where the country's leading doctors and politicians see individuals as objects of experimentation where their brains and behaviors are changed," wrote Samuel Chavkin about the United States in 1978. The same can be said about Sweden, the same ideas exist here. Mind-control technology has changed since the 1970s and has been developed even further.[16]

X-ray of a person with two types of brain implants and an object in the jaw.



This material is for publication.

If you are interested as a journalist, or would like more information, please write to us.

Investigation and reporting done by:

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Box 136
S-114 21 Stockholm, Sweden**

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Mediaeko, Investigative Reporting Group, 1996 Reprint,
Revised.*

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Mediaeko, Investigative Reporting Group, 1992.

Compiled extensively from Mediaeko, Mediaecco, and
International Network against Mind Control's (INMC) material.

[1] The technology was developed in the United States in the CIA projects called "ARTICHOKE," "BLUEBIRD," "MKDELTA," and "MKULTRA." The area has at different times been called ESB (Electronic Stimulation of the Brain), Brain-Computer Technology, Biological Radio-Communication, RHIC (Radio Hypnotic Intra-cerebral Control), and EDOM (Electronic Dissolution of Memory), among others. All of these are pseudonyms for bio-medical telemetry, which is the prevailing technique used for mind control in the eastern and western worlds.

[2] Electroencephalograph (EEG) Telemetry System consists of transmitters, receivers, and other components used for remotely monitoring or measuring EEG signals by means of radio or telephone transmission systems (In the U.S.A. see Food and Drug Administration, Medical Devices: Classification of Neurological Devices).

[3] "Dr. Antoine Remond, using our techniques in Paris, has

Lilly, M.D., Berkeley: Ronin Publishing, 1988, page 91.

[4] "Biotelemetry, which was developed to monitor the temperature, brain-wave activity, breathing rate, and heartbeat ... Biosensors attached to the body send data by wire or radio. This information may be displayed on oscilloscopes for doctors to analyze. It can also be fed into a computer that 'watches' the patient ... Some biosensors, called endoradiosondes, can be implanted in the body. The tiny batteries that power them can be recharged by radio waves." — Compton's Encyclopedia, Electronic Edition, 1995.

[5] "... the American multinational company ..., which blends radio transmitting material into its liquid cortisone preparation ... [and] it is effective in whatever part of the body the injection is made. It is highly likely that ... [it] is not unique in this way—other medical products are suspect, ..." — International Network against Mind Control (INMC), Open Letter, Stockholm, Sweden, May 1993, page 38.

[6] CIA documents mention "liquid crystals" related to behavior control, e.g.: "The project will support studies ... of solid and liquid crystals ... The materials to be studied will, to a large extent, also be of biological interest. ... These relate to physical studies which are required to develop effective materials which will influence the human nervous system." (1 September 1961) ... "An exploratory study concerned with ... certain ferroelectric crystals. ... There is also some support for structural studies of organic materials which have shown semiconductor activity." (23 July 1962) — Project MKULTRA, Subproject 99, August 1959 - September 1962, CIA MORI DocID: 17502.

[7] Instrumentation developed includes: "brain radio stimulators, ... and an optoelectric sensor for telemetry ... combining multichannel stimulator and EEG telemetric instrument; transdermal stimocivers, totally implantable for two-way communication with the brain through the intact skin; and implantable microprocessor for detection of EEG signals which are used to trigger contingent brain stimulation. ... and establishment of artificial neuronal links with the aide of the computer." — J.M.R. Delgado, M.D., "Instrumentation, Working Hypotheses, and Clinical Aspects of Neurostimulation," Applied-Neurophysiology, 1977-78; 40(2-4): pages 88-110.

[8] "Tracking could also be combined with ESB by broadcasting to and from the brain. Placement of a device

Opton, *The Mind Manipulators: A Non-fiction Account*. New York: Paddington Press, 1978, page 349.

[9] "Who is wasting tax money on experiments using devices smaller than needle points that are injected into people's bodies without consent? These people are then given shocks for 'improper behavior.' Radio frequencies are set aside by government for such experiments. ... It is illegal. If the scope of this program and its CLASSIFIED nature does not scare you, think again." – Citizens for Open and Honest Treatment of the Handicapped, Announcements, 1993.

[10] "Early workers in this field used a low-radio frequency, typically 300 to 1500 kHz, ... Since 1960, transistors for operation at 100 MHz have been available, ... implanted systems work very well in the region of 100 MHz. ... placement of a self-contained transmitter totally within the tissue represents a somewhat different situation. The tissue absorbs energy, but it also appears to compensate for this loss by reradiation of energy and effective increase in the size of the transmitting antenna." – Thomas B. Fryer, *Implantable Biotelemetry Systems: a Report*, Ames Research Center, NASA, 1970, page 65.

[11] "Just what happened to Mr. N'Tumba, he describes himself in a letter to us:

'Concerning the brain transmitter in my head, it has been performing without my knowledge or consent ... What's very outrageous is that I am sharing all my vision, thoughts, images, hearings ... etc. with people around me as the security services are engaging in a large scale propaganda drive to smear my character, background, behavior, emotions and motives ... I have no privacy at all ... I am not a spy, I am not a criminal, I am not a terrorist. Being an innocent victim of MI5 ... my persecution started in June 1988.' What is more, there is no reason to suspect the validity of what he writes; we are overburdened with letters such as this one from the USA, Denmark, Sweden, Germany, New Zealand and our investigations in Sweden reveal a terrifying reality where the mental health services, police authorities and hospitals implant radio-transmitting devices in people's heads and brains. This reality is exposed by a vast amount of X-ray material to be a chilling and gloomy vision of the future, stage-managed for decades by the security forces in collaboration with medical and psychiatric institutions who together have created a secret power which transcends law and order and which is beyond intrusive public control." – INMC, Letter to British Prime Minister John Major, Stockholm, Sweden, October 9, 1992, page 2.

[12] "If the stimulation Delgado plans to administer is electric, the shaft is an exceedingly thin steel-wire electrode coated with insulation except at the tip. Dozens of such needlelike wires may be inserted from one opening and can be attached to the same socket on top of the skull, or eventually inside it. ...

Delgado has pioneered in the remote control of electrical stimulation. He began shaping the behavior of subjects while he was in a nearby room manning a push-button radio device. Now he can do this from thousands of feet away. At first the sockets he was using to receive radio messages were outside the scalp. Now the equipment, built under a microscope, is the size of a coin and can be planted under the scalp and so is unnoticeable in a free-moving subject. Also, the device not only receives instructions but broadcasts back the subject's reactions. Delgado calls it a transdermal stimoceiver. A very recent refinement, still being perfected, is for the information being received back from inside the brain to go to a tiny computer. This computer is being programmed to recognize abnormal brain-wave activity. ... With humans he and his associates have stimulated several areas involved in motor activity. ... He caused one woman patient in his group, when she was alone in her own room, to turn her head and move her body as if she were looking for something. This was repeated. When she was asked what she was doing, the woman always had a plausible explanation. Apparently, she had no idea she was responding to the electrical stimulation of her brain. ... Lawrence R. Pinneo, a ... neurophysiologist ... at the Stanford Research Institute, ... has proved that you can think into a computer, and that the instructions you think can cause the computer to activate and move remote-control cameras and other machines. In short, the machines obey your mental instructions. Pinneo started with the motor theory of thought. This holds that verbal thinking is nothing more than subvocal speech. With a number of subjects he attached electrodes to the area of the scalp near the region where speech originates. On command they were to think of a word, such as 'schoolboy' or 'start' or 'left.' They were to repeat the word in their minds ten times. All this thinking of words was being registered by a computer. It averaged out a recognition pattern for each word. He proceeded to build up a vocabulary of fifteen unspoken English words that the computer could recognize. He trained the computer to recognize actually spoken words (overt speech) as well as think words (covert speech). They came out much alike in the word patterns that the computer stored away. ...

In his preliminary report Pinneo stated: 'We conclude that it is feasible for a human verbally to communicate both overtly and covertly with a computer using biological information [EEG] alone, with a high degree of accuracy and reliability, at least with a small vocabulary.' ... This is interesting as an exercise in scientific versatility. But what would the practical applications be, assuming that 100 percent accuracy is achieved with a much larger vocabulary of words that were only thought, not spoken? ...Perhaps the best practical use would be in surreptitious situations." - Vance Packard, *The People Shapers*, Boston: Little, Brown and Company, 1977, pages 42-43, 55, 285-286.

[13] "An essential part of biotelemetry encompasses the transmission of data. This occurs mostly with help from a surgically implanted transmitter. ... The technology has been developed quite extensively in medical research." - P.M. Persson, Swedish Defense Research Institution, FOA, 1965.

[14] Publishers Weekly's review of *The Mind Stealers*, by Samuel Chavkin.

[15] "... The situation just described is not our first encounter with the apparent use of medical implant devices in these harassment/mind-control cases. Another of our

Harassment & Mind-Control Experimentation, Silver Spring, MD: Association of National Security Alumni, 1992, pages 15-16.

[16] "ESB, however, used in conjunction with psycho-surgery and behavior modification, offered unlimited possibilities.

After experiments on laboratory animals met with success, human experimentation was enthusiastically undertaken in quest of the most reliable and absolute method of remote control of the mind. ...And, in 1974, the first victim of Parkinson's disease treated by ESB walked gracefully out of a San Francisco hospital under his own power, thanks to portable ESB. He had a 'stimoceiver' implanted in his brain ... The 'stimoceiver' which weighed only a few grams and was small enough to implant under his scalp, permitted both remote stimulation of his brain and the instantaneous telemetric recording of his brain waves. ...In 1975 a primitive 'mind reading machine' was tested at the Stanford Research Institute. The machine is a computer which can recognize a limited amount of words by monitoring a person's silent thoughts. This technique relies upon the discovery that brain wave tracings taken with an electroencephalograph (EEG) show distinctive patterns that correlate with individual words—whether the words are spoken aloud or merely subvocalized (thought of). ... While Dr. Reed conceded that it was 'conceivable that thoughts could be injected' into a person's mind by the government, he indicated that he did not believe it had already been done. ...Typically, the scientists have not been vigilant enough, for the cryptocracy already has developed remote-controlled men who can be used for political assassination and other dangerous work, ... In 1967 a writer named Lincoln Lawrence published a book ... [Were We Controlled? presented] a sophisticated technique known as RHIC-EDOM ... Radio Hypnotic Intra-Cerebral Control-Electronic Dissolution of Memory. ... 'Under RHIC, a "sleeper" can be used years later with no realization that the "sleeper" is even being controlled! He can be made to perform acts that he will have no memory of ever having carried out. In a manipulated kind of kamikaze operation where the life of the "sleeper" is dispensable, RHIC processing makes him particularly valuable because if he is detected and caught before he performs the act specified . . . nothing he says will implicate the group or government which processed and controlled him.'" — Walter Bowart, Operation Mind Control, New York: Dell Publishing Co., 1978, pages 253, 256-262.

22.THE 1950s SECRET DISCOVERY CODE OF THE BRAIN:

U.S.and Soviet Scientists have Developed the Key to Consciousness for Military Purposes

How The U.S. Government Won the Arms Race to Control Man

A documentary with quotes by leading scientists, professionals and several independent sources

**By Cheryl Welsh, copyright
May 1998 - <http://mindjustice.org>
Contents**

Introduction

This book is a description of the history and known facts of electromagnetic and neurological technology, within the framework of classified nonconsensual government experimentation. It is presented as a list of footnotes with brief commentary. It explains how the government, in particular the United States and the former Soviet Union have engineered science into a technology in order to target and control the mind and body for political and military purposes.

Chapter One

Email from Physician For Human Rights on cancellation of a human rights statistics project for mind control victims citing "fear for my family".

Chapter Two

A 1983 Defense & Foreign Affairs article by the editor Dr. Stefan Possony on Soviet-US mind control technology. A good summary of the "big picture."

Chapter Three

Jonathan Tennenbaum describes development of Soviet electromagnetic weapons and the physics and biology behind the weapons. He gives clear, concise explanations which can be verified with the current level of scientific knowledge. There are also excerpts from several articles.

Chapter Four

This is a list of what scientists are saying about brain research. It describes the physics, engineering and biology that is needed to develop mind control technology. This will explain what scientist believe it takes to decode the brain and the level of neurological research today. Will Russian and U.S. scientists develop neurological weapons on people or animals? This chapter logically and factually supports allegations by victims that brain functions and every nerve of the body can be controlled remotely with current technology.

Chapter Five

Korean brainwashing of the 1950s is briefly described. this is a turning point in the history of mind control. A few sample articles demonstrate that there was a pronounced political will to support a massive effort to control man before the Russians do, to solve the mysteries of the brain for military purposes.

Chapter Six

The history of science and military, corporations and government involvement from the 1940s up to today. There was a massive, classified military research effort to fight the cold war. There are many excerpts listed in support the fact that mind control technology could be developed out of the public eye and with the support of top officials. The top scientists of the nation work in teams to solve specific problems, such as the government Killian Panel, the Cybernetics Group, RAND, the secretive nongovernmental Institute for Defense Analysis and it's JASON Group and the Golden Fleece and the Brain Research Institute. Examples are given of eminent scientists with government funding for research related to decoding the brain.

Chapter Seven

This is an interesting and well-documented history of sensors technology, highly classified and billions of tax dollars spent on its development during the Vietnam War. The U.S. military and corporations then sell this technology to Europe. There are many articles listed here which describe the importance and funding of bionics, replacing man with electronic eyes and ears. This is the foundation for a bureaucracy to distribute mind control technology throughout the world.

Chapter Eight

This chapter describes the targeting of whole populations with electromagnetic mind control. Top government officials state unequivocally that it can be developed and there have been many rumors over the years, reported in major newspapers. The goal of controlling man for political purposes continues. Here are a few of the many examples.

Chapter Nine

This chapter states what the brain code is in general terms. This is a summary of the Soviet discovery of the genetic code of the brain, how the U.S. surpassed the Soviets and the pioneers of this amazing history. Government mind control technology has been developed, is firmly in place today and is in the plans for the future. It is important to match the description of victim's allegations to the mind control technology so that they may find a timely solution. Editor's note. Some chapters are long, over 20 pages and include the original material because of their importance and for documentation.

The main points of this book are highlighted and arranged with headings so that it may be skimmed.

Introduction

This book came about as a result of research for alleged victims of mind control experimentation. Illegal experimentation using electromagnetic weapons technology on U.S. citizens has been going on throughout the cold war, continues today and is in use as an intelligence tool and military weapon today. Please see CAHRA website for background information. **This book goes to the roots of the problem.** It is a beginning and establishes the who, what, why, when and where behind mind control technology. This book will put together important facts that unfortunately, the U.S. government will never admit until they are caught. The evidence is growing. It will be up to the reader to put the facts together.

This book will show that **scientists, governments and the military were and are interested in finding the key to human consciousness.** The military would like to have ultimate control over humans. Scientists would like to find the scientific basis for consciousness. Victims of government experimentation, who can verify the sophistication of the technology know that signals of the brain can be remotely read, decoded and that simulated brain signals can also be sent to the victim. **This book is a start on the path to describe the scientific basis of the technology** used to destroy unwitting victims of mind control experiments. I hope that this will stimulate further research. Most scientists agree that to find the brain code would be a tremendous undertaking, like the Manhattan Project to develop the bomb, the space program to go to the moon or the gene mapping program. Funding and scientific coordination is required for projects such as this. In the 1940s, both Russia and the United States were very interested in this topic. And if there were a mind control arms race, as indicated by several independent documents, the political will would necessitate a mind control "Manhattan Project".

This book will present the basic scientific theory of the brain code as described by scientists. And it will give examples of the development of this technology and how it could be hidden from the U.S. public.

Many historical facts make sense in light of this hypothesis. Why has the United States denied the "nonthermal" theory of electromagnetic effects on biological organisms and yet the Russian scientific literature documents this fact going back to the 1920s? Why is there a documented history of electromagnetic politics that leads to a U.S. cover up beginning in the 1940s? A large military project to use electromagnetic technology for military and political purposes would be a logical explanation. This history is barely beginning to be told. There have been rumors for years. When the information is finally declassified, it will be an amazing and tragic history. There is hope that a scientist who knows of this classified situation will share this information. In a similar way, the leaked confidential tobacco company papers by the tobacco employee was a heroic act and will save many children's lives eventually, as the tobacco companies are made to change their ways. As a gesture to humanity and to save thousands of alleged victims of nonconsensual electromagnetic

and neurological experimentation, this could begin the process of dismantling the cold war thinking that has allowed horrific radiation experimentation and now mind control experiments.

This book starts with a small but powerful example and proves that while the best evidence is still classified, there is still proof that the U.S. government is conducting mind control experiments and using the technology without consent of the target. Next, this book will present a few representative articles written by **well-known scientists and professionals on mind control and electromagnetic technology**. The first article is by a Hoover Institute Fellow, Dr. Possony. It is a good overview of the whole situation. There will then be excerpts from articles on solitons and their role in mind control technology on a quantum level.

Next there will be excerpts from papers by Jonathan Tennenbaum, editor of Fusion magazine. **There are clear physics and biological descriptions of the mind control weapons which have been developed by the Russians.** The history of this development is described and excellent footnotes for further reading are included. Other sources verify the premise that the Soviets have developed mind control technology since at least the 1940s.

The next section includes excerpts from several articles and demonstrate the interest in **electromagnetic technology and the brain by scientists and the military for over 50 years**. Other articles will show that the brain's electromagnetic signals can be remotely detected **by SQUID. There will be current articles in support of the fact that science has decoded the brain signals so that direct communication with the brain is possible.** While it is true that this is highly classified, there are still strong indications of this fact. Classification has been used to cover up radiation experiments and even though there was proof, for various reasons, it was ignored. Again, history is repeating for mind control victims. It is important to note that the highly technical and sophisticated electromagnetic technology which is briefly described in this section, matches the symptoms that victims have described and documented. This short section describes the Korean brainwashing scare of the 1950s and how much scientific effort and money was put into behavior control experiments by the CIA. This event would provide the political will necessary to fund mind control research and to start the search to find out how the Russians were brainwashing Korean soldiers and find the antidote. **The search for the decoding the brain intensified in the 1950s as several article will demonstrate.** The following section describes the U.S. government during the 1940s through the present time. The classification, the cold war mentality, the scientists and their interest in brain research is well-illustrated from several different sources. There are many research leads to follow.

The science and government relationship that exploded during World War II has had an effect on this problem and will be briefly mentioned. The funding of scientists and **how scientists worked in elite groups** such as RAND corporation and the Jansons Group, a part of the Institute for Defense Analysis is described. Out of the public eye, there was no accountability and no public input. A few examples of problems are described. There is a large section on the development of sensors technology because it **explains so well how the military has worked with scientists. The Electronic**

Battlefield by Paul Dickson is one of the few books which portrays the negative side of the military and supports his claims with many footnotes.

There are many ideas on how to work on mind control technology issues that can be found in this book. The newspaper articles on electromagnetic technology which can be broadcast over populations for warfare and psychoactive effects will be listed with excerpts. The numerous citations and excerpts are listed in order **to answer the question of how the government could technically do this and to show that the government was interested in this technology in order to fight the cold war.** **The U.S. government has decoded the brain. This is important to know about because there are allegations of abuse and there is no accountability or public input.**

Until someone stops the U.S. government, the problem will continue to get worse. The number of victims of government experimentation is increasing. And all of the experts say that electromagnetic weapons are as serious as the atomic bomb (**see CAHRA website, nonlethal weapons.**) The warnings are there. This problem has been around for years and it is highly classified but that does not mean it doesn't exist. **The many excerpts from several independent sources are adding up to the same conclusion.** There is nonconsensual government electromagnetic experimentation and it is a tragedy that needs to be dealt with. On a more hopeful note, this article can prove that the mislabel of mental illness, which most victims have endured, is a thing of the past. There is too much evidence now. That is why it is important to keep researching, so that it will never happen again.

Chapter One

There is a problem. Here is one example of irrefutable proof.

An email **from a physician from the group Physicians for Human Rights** is convincing evidence of the seriousness of this problem. It is one of the common replies received by victims. This doctor wrote on biological warfare and was very active in human rights issues. When asked to write a medical report on allegations by victims of electromagnetic weapons testing experimentation this was the reply on March 10, 1997.

"...After a lot of consideration, I've decided that I cannot undertake this project. I have a family, and feel unable to subject them to any risks that might result because of my involvement."

Chapter Two

The following important article was written by one of **"the greatest strategic philosophers of the 20th Century"**, founder of International Strategic Studies Association, former member of Mankind Research Unlimited and former psychological warfare expert with the Office of Naval Research. **Dr. Possony stated that mind control is feasible and militarily important.** The article is a good overview of the Soviet-U.S. race to develop mind control technology and a precise explanation for why there is illegal experimentation going on to this day. Here is the entire article, with its

many research leads. Possony, Stefan. (1983, July).

Scientific Advances Hold Dramatic Prospects for Psy-Strat. Defense & Foreign Affairs. P.34. **Associate Editor Dr. Stefan Possony discusses how scientists are facing the prospect of messaging directly into a target mind. Whither psy-war?** The history of psyops technology is about 200 years old, and it will continue to progress. Hence it is most important to look into the future. It is no longer really difficult to send messages to the targets; that is, the persons who are to be influenced. The target cannot be reached if he is not interested in the originator, nor in his message, or if his interest is perfunctory. He is unattainable also if he is bored, and if he finds it more pleasurable to listen to competitors, who are multiplying. The target cannot be persuaded to listen. It is the other way around; he may listen if he already is fully or partially persuaded, and if the program is attractive in addition to informative, and if it helps him in his activities. Psyops technology is more or less in hand. Its better utilization is at present precluded in most instances by political ineptitude and by international opposition. The importance of better programming is recognized as a theory, but new ideas and fundamental improvements are rare. Hence success often is a matter of hit or miss. At this point, let us forget about history and current events, and let us resolutely turn to the future; I want to alert you that psyops technology may advance from communicating to direct signaling. Some developments in this regard are already taking place. **X-rays and gamma rays** are located at the upper end portion of the electromagnetic energy frequency spectrum.

What is at the lower end? The most important of all of nature's phenomena. **Suppose it becomes feasible to affect brain cells by low frequency waves or beams, thereby altering psychological states, and making it possible to transmit suggestions and commands directly into the brain.**

Who is so rash as to doubt that technological breakthroughs of this general type would not be put promptly to psyops use? More importantly who would seriously assume that such a technology would not be deployed to accomplish political and military surprise?

A few years ago there was much excitement about the Soviet microwave "bombardment" of the US Embassy in Moscow. Why did the KGB, then under Yuri Andropov's leadership, embark on this seemingly scurrilous -- and very prolonged -- effort? There was no answer to this question, except that the KGB must have wished to harass US diplomats and cause them to worry about their health. this theory was never convincing.

The question was raised **whether the Soviets had discovered a technique of using microwaves for psychological purposes**, and whether they were experimenting with this technique on US specialists on the USSR, unwittingly pressed into Soviet service as guinea pigs. Impossible, **replied the State Department, the waves cannot break through the blood-brain barrier**, and thermal effects are so negligible that the body would not be affected. Nevertheless, embassy personnel were indemnified for health damage. By 1979, at the latest, it was known that electromagnetic fields raising body temperatures less than .1 degrees Celsius may result in somatic

changes. It was most surprising that such a trivial temperature rise was having any effects, and even more astonishing that those effects were significant.

Chemical, physiological and behavioral changes can occur within "windows" of frequency and energy continua. One of those windows is connected with navigation in marine vertebrates and with biological rhythms of humans. Another is at the level of the human electroencephalogram (EEG), which is in the range of extremely low radio and sound waves, around 20 Hertz. Those findings remain unexplained. They seemed to require energy amplification of the initial stimulus by some 12 orders of magnitude. No such amplification was deemed to be feasible, and none was discovered.

Let us cut the story to the minimum. The original model, according to which the bloodbrain barrier cannot be broken, was derived from **the axiom that electromagnetic waves interact with tissue in a linear manner. However, it turned out that the molecular vibrations caused by a stimulating extracellular electromagnetic field are non-linear.** Utterly unexpectedly, they take the form of soliton waves which can transfer energy along long molecular chains.

By 1982 the term "soliton" finally made it to the technical dictionaries. Here is a definition from the 1982 McGraw-Hill scientific-technical dictionary: "A soliton wave...propagates without dispersing its energy over larger and larger regions of space." As I understand it, it would be more correct to say: "A soliton wave propagates suddenly acquired energy, or energy imparted by shock, without dispersing it." Significance? Extracellular disturbances such as acoustic or electromagnetic bursts can be propagated across the cell membrane. In this, non-linearities in molecular dynamics rather than chemical kinetics are the key. Put differently, the 12-magnitude energy deficit is overcome, not by brute force, but by the formation of solitons.

Visualize the brain and its environment as structures of waves, and assume that shock waves create solitons. Then imagine that modern electronics with their flexibility, accuracy and speed are put to work.

In addition, the range of resonances probably will be increased. Hence many frequencies, and several options for the transmission of energy across the membranes of brain cells may become available.

This may imply that the brain cells will be reachable diversely and flexibly, and perhaps routinely.

The discovery of cross-membrane coupling may be compared to the discovery of oxygen in 1772, which allowed the proof that phlogiston, the supposed element of fire, does not exist. Once the phlogiston idea was buried, chemistry and the chemical industry began their triumphal march across the world. The exploration of the cross-membrane phenomenon is only at the beginning, and it is not yet possible to anticipate practical applications. As of now a new phenomenon has been discovered, probably.

Nothing is as yet known or is known publicly, on how the soliton can be aimed to produce desired effects. Only a hypothesis can be stated: If the phenomenon can be utilized, this will in due time have

crucial bearing both on the body and on the brain, and on defense. The theory of cross-coupling was formulated by A.S. Davydov who it seems, published the first purely theoretical version in 1976, and followed this up with a study on "Solitons as energy carriers in biological systems". By 1979 Davydov appeared to be linked to the Ukrainian Academy of Science.

It should be noted that Russian mathematicians were concerned with solitons before US scientists ever got interested. It is therefore conceivable that Davydov achieved his results long before publication, and also that the experiments which involved the US Embassy, produced findings which led to subsequent progress.

In the US, the pioneering work seems to have been done by Albert F. Lawrence and W. Ross Adey, writing in *Neurological Research*, Volume 4, 1982. The Max Planck Institute for Biochemistry in Munich also discovered that cell membranes can be crossed. Eberhard Neumann and Guenther Gerisch found that a shock wave passing through an electric field may create ultra-quick processes within the membrane, and that through such "jumps in the field" (Feldsprünge: this probably means solitons) genes can be transmitted and cells fused.

There is a differential in the tension of the inner and outer membrane which averages $1/70,000$ of a volt. This corresponds to 70,000 volts per (theoretical) membrane thickness of one centimeter. (The real thickness of a membrane is 0.1×10^{-8} centimeter.) The discovery was made unexpectedly in the course of research on electric fields in membranes and their impact on vital processes. This research requires measurements of events lasting not more than one nano-second (one billionth of a second), and it suggested that solitons generally increase the permeability of membranes. Thus, new perspectives on genetic "engineering" were suddenly opened. Moreover, it was possible to fuse no less than 50 cells into one supercell with 50 nuclei and one single membrane. We might as well forego assessing this monstrous novelty. The Max Planck Institute broke into the membrane, so to speak, either without knowing about Davydov, Lawrence and Adey, or after learning about them while pursuing a different goal. In either event, a fundamental innovation, a breakthrough discovery or invention will be made several times, at different places, and by persons working independently from one another.

It is futile to speculate on who stands where in a race which has barely begun. But it can be postulated that the USSR probably has an ambitious research program, whereas in the US, while work is being done, no program --let alone a crash program--is in existence.

It is predictable that in the wake of Andropov's upgrading of psyops, the relevant programs in the USSR will be given an early and powerful boost. Future psyops will have to be planned for perspectives which cannot be formulated before the US embarks on a major and totally novel research and development program. Meanwhile, it must be assumed that psyops will grow world wide, in strategic importance and in new forms.

The following report appeared in "Defense & Foreign Affairs Daily" on June 7, 1983: On May 20, 1983 US newspapers printed an Associated Press story from the Veterans Hospital at Loma Linda, California that the Soviets developed a device, called Lida, to bombard human brains with radio waves.

The radio beams and expected to serve as a substitute tranquilizers, and to treat sleeplessness, hypertension, and neurotic disturbances. It is not yet determined whether Lida affects the immune and endocrine systems. Lida is reported to change behavior in animals. At the present, the device is on loan to Dr. Ross Adey, chief of research at Loma Linda. Adey started testing the machine three months ago, and hopes to complete his investigations within a year.

According to Dr. Adey, who repeatedly visited the USSR, the Soviets have used the machine on people since at least 1960. The machine is technically described as "a distant pulse treatment apparatus". It generates 40 megahertz radio waves which stimulate the brain's electromagnetic activity at substantially lower frequencies. Dr. Adey was quoted as saying: "Some people theorize that the Soviets may be using an advanced version of the machine clandestinely to seek a change in behavior in the United States through signals beamed from the USSR." No reference was made to the protracted microwaves bombardment several years ago of the US Embassy in Moscow. On April 29, 1983, Associate Editor Dr. Stefan Possony, addressing the Defense 83 meeting sponsored by Defense & Foreign Affairs, reported on Dr. Adey's work and on the work by Dr. A.S. Davydov of the Ukrainian Academy of Sciences. Davydov discovered how the blood-brain barrier can be penetrated by low frequency beams and directly affect cells in the brain. Possony's remarks were delivered to a panel studying psychological warfare. [Part of that paper is printed below--Ed.]

In the US research on direct brain waves has scarcely begun, and the USSR has a lead of approximately 25 years. Once it is matured the new technology will be extraordinarily significant in medicine. It also may have major impacts on communications, intelligence, and psychological operations, and permit deliberate physiological impairment.

The KGB is known to be interested in the program. It is not known whether the US and other Governments are trying to determine whether their countries have become targets of clandestine brain waves beamed from the USSR. Nor are there indications that work on countermeasures is being contemplated, except perhaps in the USSR.

Solitons

Editor's note. Most people have not heard of solitons. But, Dr. Possony is not the only professional discussing solitons and mind control. Here are excerpts from books and journals to give an overview of biological nonlinear effects and solitons. No author. (1979, October 27). You Cannot Be a Twentieth-Century Man Without Maths. Economist. Pg. 107.

"Fortunately for pure scientist, most of the problems of basic physics and chemistry either are (or can be adequately handled as) linear problems.

It is only in modern science--in particular, in quantum physics and gravity--that non-linearities loom large. ...The big news in maths is that there are recent developments which promise to make the solving of such non-linear problems possible. ... One development concerns things called solitons. .. So the equations of solitons are being applied to the fields surrounding subatomic particles. A whole group of elementary particles. A whole group of elementary particles may have been missed by the existing theories. Solitons may also help to understand the force of gravity, which also behaves in a

non-linear way. Although Einstein's theory of relativity was a breakthrough in understanding gravity, there is still much to be learnt about this force. Solitons are also being used in research on climate, electronic circuits, fusion power, **nerve conduction, optical materials, superconductors** and a range of other engineering problems."

Remoissenet, M. 1996. Waves called solitons: Concepts and experiments, 2nd ed. Springer-Verlag. "Preface to Second Edition. ...Chapter 1 was expanded by a discussion of the discovery of solitons in the field of electromagnetic waves and optics. P. 1. "Basic Concepts and the Discovery of Solitons.

"Today, many scientists see nonlinear science as the most important frontier for the fundamental understanding of Nature. The soliton concept is now firmly established after a gestation period of about one hundred and fifty years. Since then, different kinds of solitons have been observed experimentally in various real systems, and today they have captured the imagination of scientist in most physical discipline. They are widely accepted as a structural basis for viewing and understanding the dynamic behavior of complex nonlinear systems."

Infeld, Eryk & Rowlands, George. 1990. Nonlinear waves, solitons and chaos. Press Syndicate of U Cambridge. p.5. "5. A theory that relies on the interaction of a small number of periodic modes also exists see Infeld (1981c). Solitons are special wave pulses which interact with one another so as to keep their basic identity and so that they act as particles. Now the soliton has come of age in its mother subject, though in the meantime promising to be a useful concept in many other effects. One of the first detailed experimental verifications of soliton type behaviour was in the study of nonlinear ion acoustic waves.

"Davydov (1968), (1985) has applied some of the rules of solid state physics to the transport of energy down protein chains. He has shown that the idea of soliton propagation is essential to a study of chemical changes taking place in long protein molecules. This leads to the transfer of ATP (adenosine triphosphate) and could be the basis for an understanding of muscle contraction. Though much may still remain to be done in molecular biological problems it seems likely that the concept of a soliton will remain the cornerstone of any future theory."

Chaohoa, Gu, Yishen, Li Guizhang Tu, Editors. (1990). International Conference on Nonlinear Physics, Shanghai 24-30 April 1989. p. 166. Ablowitz, MJ. et al. U Colorado. Nonlinear Evolution equations, Solitons, Chaos and Cellular Automata. Acknowledgments.

This work MJA is partially supported by the NSF, O of Naval Research, & Air Force O of Scientific Research. "Among the remarkable discoveries in applied mathematics during the past twenty or so years, have been the concept of the soliton and completely integrable nonlinear partial differential equations, chaotic phenomena associated with nonintegrable equations, and the understanding of cellular automata."

Kerner, B.S. & Osipov, V.V. 1994 Autosolitons A New Approach to Problems of Self Organization & Turbulence, Vol 61. Kluwer Academic Publishers. Introduction. "...**The properties of traveling autosolitons (pulses) and some**

other autowaves were analyzed as early as 1946 by Wiener and Rosenblueth on the basis of an axiomatic discrete model. Hodgkin and Huxley(1952) proposed and studied a model of impulse propagation in nerve fiber; ..." p. 110. "...there are numerous examples of active distributed systems of highly diverse nature which may host autosolitons as well as more complicated dissipative structures and autowaves. Such are, for instance, chemical and biochemical reactions (Zhabotinskiik 1974: Nicolis - Prigogine 1977: Haken 1977),..."

Chapter -Three

In two articles, Jonathan Tennenbaum describes development of Soviet electromagnetic weapons and the physics and biology behind the weapons. Following the quite long Tennenbaum articles, there are several articles on the soviet development of electromagnetic and neurological technology. It is difficult to get information on this topic and to know what is going on but over a long period of time, the same facts are repeated and therefore become more verifiable and believable. For over 25 articles on Russian mind control see U.S. Human Rights Report Flatlands Publishing Ft. Bragg (707) 964 8326. It is not easy to see which is disinformation, as there certainly must be on this topic.

But these are several independent sources over several decades, stating much the same theme. And the science and military implications of electromagnetic technology are by now well established. Electromagnetic-Effect Weapons: The Technology and the Strategic Implications.

Wiesbaden Federal Republic of Germany Jan. 16, 1988. **Executive Intelligence Review. (Executive Intelligence Review Special Report.** 317 Pennsylvania Ave. S.E., 2nd Floor. Washington, DC 20003 (202) 544-7010. Pg. 7. Michael Liebig. ..."This Special Report is meant to sketch the gestalt of this newly emerging Soviet threat, the dimensions of which the Western public is most dangerously unaware. There is barely any understanding in the West of the revolutionary transformations in technology and strategy associated with electromagnetic effect weapons."

Tennenbaum, Jonathan. (1988, Feb). Some ABCs of Electromagnetic Anti-Personnel Weapons. Executive Intelligence Review. Executive Intelligence Review Special Report. 317 Pennsylvania Ave. S.E., 2nd Floor. Washington, DC 20003 (202) 544-7010. Pg. 9. Dr. Jonathan Tennenbaum is on the Board of Directors of Fusions-Energie-Forum in the Federal Republic of Germany, and an editor of its magazine, Fusion. "Often referred to by the misleading name, "radio-frequency weapons," The most sophisticated new type of anti-personnel weapons now being perfected by the USSR for use by its Spetsnaz and regular forces, uses pulses of electromagnetic energy to disorient, paralyze, and kill human targets. Such electromagnetic pulse (EP) weapons can take a variety of forms, including the following: ...

Electromagnetic pulse anti-personnel weapons have many scientific and technical features in common with the laser weapons under development in the American and Soviet anti-missile defense programs. Both use electromagnetic radiation, **propagating at 300,000 kilometers per second**, to achieve their destructive effect. Both require compact power sources, generators of electromagnetic radiation (e.g., **lasers, magnetrons, gyrotrons, etc.**), **beam radiator and focusing apparatus (e.g., optics for lasers, wave guides and phased-array antennas for microwave weapons)**, and computerized control

systems In both cases also, the maximum effect of these weapons is obtained by "tuning" or "tailoring" the output to the characteristics of the target. The chief peculiarity of EP anti-personnel weapons lies in their exploitation of highly non-linear effects of electromagnetic radiation upon living organisms. Typically, these weapons employ complicated pulse shapes and pulse trains, involving several frequencies and modulations which can range over a wide spectrum from extremely low frequencies (ELF) into the hundred gigahertz range.

Thus, although state-of-the-art technology permits construction of mobile systems of extremely high output power (up to 10 megawatts average power, peak pulsed powers of many gigawatts), it is not the high power per se which determines the lethality of the system, but rather its ability to "couple" the output effectively into the target and to exploit non-linear biological action. While high output power may be used to obtain range and breadth of effects and penetration into enclosures and defenses, the minimum lethal "dose" on target will typically be orders of magnitude less than that which would be required to kill by mere heating, in the manner of a microwave oven.

The closest analogy to a sophisticated EP anti-personnel weapon is provided by powerful chemical weapons, such as nerve gases having rapid, fatal effects at extremely low concentration. In the latter case, the effect is mediated by molecules which enter nerve synapses and other critical areas and disrupt normal functions without massive destruction of tissue. The poison acts on the higher levels of organization of living process. Furthermore, it should be understood that molecules themselves are nothing but electromagnetic configurations. That is, the molecules (e.g., of the nerve gas) **act via electromagnetic fields, by exchange of electromagnetic energy with other molecules.** Hence, it should hardly be surprising to discover that the same effects can be induced by electromagnetic radiation alone-without the presence of the molecules! In principle it suffices to identify the precise geometrical characteristics of the electromagnetic action associated with the given substance, and then just "mimic" the molecular action by a carefully "tailored" signal.

Once this principle is understood, **biophysical research can define the most appropriate pulse forms for weapon applications**, independently of any specific chemical "model."

That this is by no means a mere theoretical possibility is proven by a wide variety of experiments on the biological effects of "tailored" electromagnetic radiation, carried out in the West and East over the last 40 years. For obvious reasons, experiments involving lethal effects are mostly classified. To illustrate some of the relevant research areas, we present a couple of examples of well-documented non-lethal effects.

Since the 1950s much scientific attention has been paid, in the East and West, to effects on the brain of 1) psychotropic drugs (LSD, depressants, stimulants, etc.) and 2) electrical stimulation of specific areas of the brain by implanted electrodes. Among other things, experiments showed that minute currents induced by electrical stimulation could evoke profound changes in brain function, similar to those obtained by psychotropic drugs, the latter often at extremely low concentrations.

This work reveal some "deep secrets" of the physiological organization of the brain, secrets having potentially far-reaching military implications. Since the early 1970s a number of published experiments have shown that similar, profound neurological effects can be induced without the "substantial" intervention of drugs or electrodes, by electromagnetic fields applied from outside the experimental subject. Typical of these are those of Dr. Jose Delgado and Dr. Ross Adey.

Delgado applied a slowly modulated weak magnetic field (several Gauss, pulsed at less than 100 Hz) to the heads of monkeys via external coils. Depending upon the precise modulation frequency used, specific effects were induced. Thus, one frequency caused the animals to fall asleep, and another triggered aggression, each time with very specific neurophysiological effects on specific areas of the brain. Adey and others have obtained similar neurophysiological effects with a modulated, low-power, radio-frequency field, with modulation frequencies in the range of the internal "brain waves" (EEG). Absorbed power levels were very low- on the order of a thousandth of a watt per square centimeter. Related experiments have shown that internal EEG waves can be entrained and modified, demonstrating the possibility of direct information transfer to the brain via modulated radio-frequency (RF) fields. Thus, below the threshold of lethal effects, a certain potential for subtle psychological manipulation by means of "tailored" electromagnetic signals cannot be excluded.

Lethal effects have been obtained at power levels not very much higher than in behavior modification experiments. Again, it is not so much the net power **as the exact form of the applied series of pulses, which makes the difference.** One laboratory device, used in brain research, kills experimental animals with a single microwave pulse of 1/6 second duration. **While the neurological effects of modulated RF and microwave radiation have long been a high-priority area for Soviet research,** this field has tended to be played down or even suppressed in the West. **For example, Delgado's magnetic field experiments have gone nearly unnoticed in the Western scientific literature, but are a featured subject in a recent Russian book,** published under the auspices of Znanyia, a cadre organization headed by top Soviet military scientist N.D. Basov. **While we have concentrated here on the brain as a key target of EP weapons, this is by no means the only target. The central nervous system more generally, and vital organs, especially the heart, are all possible targets.**

Moreover, a very insidious deployment of EP would be to degrade the overall health of persons in a certain area by long-term, low-level irradiation. There is evidence that the latter has already been tried by the Soviets in a number of cases. Much more could be said about non-linear biological effects exploitable by EP weapons. In this short introduction, however, **we want to move on to another key problem of these weapons; how to generate and deliver the destructive action to the target.** This Special Report presents some details on high-power RF and microwave generators, an area of highest priority in Soviet research and development. There are two essential types of devices which can be used in EP weapons; **oscillators using beams of electrons or plasmas, and solid-state devices.**

Solid state radar, whose development is driven by the needs of military aircraft and missiles, is one of the fastest advancing areas of electronic technology today. Although solid state devices do not (yet!) reach the very high powers attained by electron beam devices, miniaturization makes it possible to build today complete, **highly sophisticated phased-array radars of suitcase-size, with several kilowatts of average output. The principal advantage of this technology is that it permits extremely sophisticated "tailoring" of pulse shape in space and time, in a compact system, with direct coupling to high-speed computers. This is exactly what is needed in order to optimally exploit non-linear biological effects.**

What is lost in brute power is thus gained in efficiency. Recent breakthroughs in what is **called "high-temperature superconductivity" open up the perspective that both types of EP generation technology--electron beam as well as solid state--are going to undergo revolutionary improvements in the years immediately ahead. The impact of this revolution cannot even be estimated at this time, but it will certainly mean radical reductions in the size of devices having a given electromagnetic "firepower".**

As our discussion of biological effects already indicated, electromagnetic anti-personnel weapons depend essentially on "tuning" the output signal to the target. This goes not only for the frequency and amplitude of the signal, but for its entire space-time "shape." Figure 6, for example, is drawn from thermographs of models of the human body irradiated by RF radiation of the same frequency, but with field geometries. These and other experiments demonstrate, that the areas of maximum absorption of electromagnetic energy inside the body depend on the geometry of the incident wave. By choosing the right geometry, the energy can be focused into any desired area, such as the brain. A sophisticated EP weapon must thus be able to project a specific geometry of electromagnetic field onto a distant object, over a given terrain and in given surroundings. Without going into technical details of waveguides and various antenna types, we shall briefly present one of the relevant techniques: the principle of the phased array. A phased-array antenna consists of an assemblage of many individually controlled emitting (or receiving) elements, placed in a fixed geometrical arrangement. The output field of the array is the sum of the waves emitted by the individual elements. By electronically controlling the relative phases of these individual signals, the output field can be given any desired "shape" and direction, limited only by the wavelength used, the number of elements and the size of the array. The huge soviet ABM radar at Krasnoyarsk, for example, contains an 83-meter diameter phased array of thousands of elements. The output can consist of a single, very narrow beam, or hundreds of independently directed beams, all depending on the "phasing" of the elements. This radar can track large numbers of missiles simultaneously, without any mechanical motion of the antenna.

The functioning of phased-array antennae is thus closely related to holography, or three-dimensional photography. In a hologram, a photographic plate records interference patterns, corresponding to the phase relationships of laser light reflected from the object. When the holographic plate is illuminated by a laser, the phase relationships are "reconstituted" and the viewer has the impression of seeing a three dimensional object.

The ensemble of elements of a phased-array antenna takes the place of the holographic plate, but at a much longer wavelength than visible light (centimeters and millimeters instead of fractions of a micrometer). When operated in a receiving mode, the phased array obtains much more information than an ordinary antenna; like the hologram, it measures entire electromagnetic **field geometries, not merely a onedimensional, electromagnetic "signal"** The holographic principle underlying phased-array systems points to a potentiality for creating any desired three-dimensional, electromagnetic field distribution around a target object, from a distance, correcting for reflections, obstacles and other interference.

Moreover, the field can be transformed and shifted from one location to another in space within a fraction of a second. Thus, an ideal EP-weapon could attack many individual targets, simultaneously or in rapid succession. One or more phased arrays would be used in receiving and transmitting modes to "lock on" to selected targets, and determine the necessary geometry of the attack pulses. To fully exploit such potentialities, the weapon would require for its target-acquisition and beam-control systems, sophisticated high speed computers, able to perform complex computations of the "inverse-scattering" type. Miniaturized systems of this sort are well within the reach of 'fifth generation' computer technology. "Hybrid" digital-analog systems would be simpler, smaller, and faster still. There is much overlap in requirements between EP weapons and systems developed for strategic defense(SDI). For concrete weapons applications, simpler devices will often suffice; trade-offs can be made among range, output power, extent of three dimensional field control, and sophistication of biological effects.

As was the case earlier with nuclear weapons, many people may be tempted to think that EP anti-personnel weapons constitute "absolute weapons" against which no defense is possible. A glance at the history of the SDI, or of military science and technology in general, shows why no such thing ever has or will exist. An obvious aspect of defense is to detect, locate, and neutralize weapons before they can be used. Antenna structures of EP weapons are resonant structures which can be detected in various ways. Spetsnaz deployment of EP weapons can be countered by intercepting the weapons or weapons components in transport, by appropriate surveillance of the areas around potential targets, and by the whole range of countermeasures which can be taken against the Spetsnaz groups themselves. Of course, the EP weapon declares its existence as soon as it is turned on, and itself becomes vulnerable to rapid counterattack if readiness and appropriate means are at hand. The famous "Faraday cage" and other forms of electromagnetic shielding can provide some protection against EP weapons, especially if the characteristics of the EP signal are known in advance and countermeasures are devised accordingly. Unfortunately, a sophisticated weapon can "tailor" its pulse to get through nearly any given kind of shielding utilizing non-linear, inverse-scattering techniques and a process known as "self-induced transparency." A Faraday cage under certain conditions can be transformed into an antenna, focusing the signal on the inside and even enhancing the effect for the unfortunate persons inside.

In theory, biological effects can be offset by creating a controlled "electromagnetic environment" around the target, with the effect of "detuning" the target relative to the anticipated signal of the attacking EP weapon - a kind of "immunization." To realize such potentialities will

require a major research effort, but one having important spinoffs for biology and medicine.

The application of holographic principles to EP weaponry has profound implications for the future shape of warfare.

The deployment of such weapons and the defense against them cannot be understood in terms of "point-to-point trajectory" concepts associated with conventional firearms and artillery. Actually, even in the past, competent military doctrine has always emphasized the geometries of "fields of fire" generated by overall deployment of mobile weapons over a given area, as opposed to mere "straight-line" action of an individual weapon. The geometrical aspect becomes much more explicit in the era of EP weaponry, in which "firepower counts as the ability to control the electromagnetic field geometry on the field of battle, through coordinated deployment and operation of mobile phased arrays and related devices. The situation could therefore be summed up as follows: in practice, both the use of EP weapons and defense against them is a tricky, sophisticated business, if the antagonists are at comparable levels of technology, knowledge, and preparation. A surprise attack against an unprepared enemy is simpler and very devastating. In this respect, EP weapons are no exception to the general rules of warfare."

Tennenbaum, Jonathan. (1988). Soviet Work on Electromagnetic Pulse Weapons. Executive Intelligence Review. Pg. 17 The 1987 edition of the U.S. Department of Defense review, *Soviet Military Power*, contains the following stern warning about the current Soviet mobilization to perfect electromagnetic pulse (EP) weapons: "Recent Soviet developments in the generation of radio-frequency (RF) energy have potential applications for a fundamentally new type of weapon system that would degrade electronics or be used in an anti-personnel mode. The Soviets already have or are working on much of the technology for such a system. In their research the Soviets have generated single pulses with peak power exceeding 1 billion watts and repetitive pulses of over 100 million watts.. No significant technological obstacles stand in the way of a prototype short-range tactical RF weapon."

In this Special Report, we shall document that the U.S.S.R. presently possesses the essential technological base, plus knowledge of advanced biophysics, to realize a wide variety of tactical and strategic electromagnetic anti-personnel weapons. We shall demonstrate this from the Soviets' own technical publications.

Fortunately, we are not able to show pictures of EP weapons on parade in Red Square-if we could, it would be too late! Figure 1 shows, on a map of the U.S.S.R., some of the known centers of Soviet work on the science and technology of EP weapons. For example, advanced high-power microwave generator work is carried out at the Applied Physics Institute in Gor'kiy near Moscow, at several institutes in Tomsk, at the Moscow Lebedev Institute, in Leningrad, Novosibirsk, and other locations. Advanced biophysical research of military importance is going on at the Institute for Biological Physics (G.M. Franck) at Pushchino near Moscow, at the Siberian Division of the Academy of Medical Sciences at Novosibirsk, at several institutes in Alma Ata, in Vladivostok, and at a number of establishments linked to the Soviet manned space program. (There is significant overlap between space medicine and the biophysics of EP weapons effects.) The question marks on the map indicate that only a very small part

of the relevant research and development ever finds its way, even obliquely, into available Soviet technical journals. **Military secrecy is much stricter and all-encompassing in the East than the West.**

An interesting article appeared this year by one V.M. Koldayev in the Soviet journal *Biologicheskiye Nauki* dealing with "The Correction of Acute Microwave Exposure by Drugs-Experimental Results." In the article a large number of pharmaceuticals are evaluated for their capability of enhancing the resistance of the human organism to microwave radiation. Both preventive treatment, before exposure, and post-exposure treatment are discussed. Koldayev stresses a point which is key to the Soviet approach to microwave and radio-frequency effects: "Intensive microwave radiation changes the membrane characteristics of cells and ion transport, generates electrical breakdown at the boundaries of phase regions and other effects causing a destruction of living processes. Research in recent years has shown that the 'thermal conception' of microwave effects is inadequate."

Kolayev points to a major stumbling-block of Western biophysical research: the absurd, but stubborn insistence on the part of the Western research "establishment", that electromagnetic radiation could have no other effect on a living organism than to increase its temperature (I.E., in Koldayev's words, the "thermal conception").

As a result of this blind spot, many Western specialists still refuse to accept the existence of precisely those kinds of effects upon which the most lethal Soviet EP weapons depend.

The Soviets presently lead the world in research into a crucial, but not much publicized field called "optical biophysics," sometimes referred in the West as "bioelectromagnetics," which deals with the electromagnetic organization of living processes.

Although modern research into this area goes back to Louis Pasteur, the most consistent and sustained efforts were launched in Russia by V.I. Vernadsky (1863-1945), the physicist biologist, geologist, and architect of the Soviet atom bomb project. Vernadsky's scientific training focused on the works of Pasteur and radioactivity pioneer Pierre Curie, and included visits to the Pasteur Institute and other leading European science institutes. Vernadsky initiated the systematic search for reserves of uranium and other technically crucial minerals throughout the Russian empire, and was a key organizer of the pre-World War I economic mobilization in Russia.

As founding director of the State Radium Institute in Leningrad, Vernadsky launched in 1926 a crash program of fundamental research into the "physical geometry" of living processes, which would include a comprehensive study of their interaction with electromagnetic radiation:

"Only a few of the invisible radiation's are known to us at present. We have hardly begun to realize their diversity and the inadequacy of our knowledge of these radiations which surround us and pass through us in the biosphere, and to understand their basic role in the processes going on around us, a role which is difficult to comprehend by those accustomed to other conceptions of the Universe...We are surrounded and penetrated, at all times and all places, by eternally changing, combining and opposing radiation of different wavelengths--from 10 millionths of a millimeter to several kilometers."

Out of Vernadsky's program came the Soviet military slogan: "He who controls the entire electromagnetic spectrum will dominate the world." It was Vernadsky who coined the now-common term "biosphere," emphasizing the fact that the totality of living matter on the Earth forms a coherent process in powerful mutual interaction with the climate and geophysical conditions of the planet. This work was the basis of the concept of "planetary war" advocated by Marshal Ogarkov, according to which all available scientific knowledge concerning the biosphere is to be mobilized in war in order to crush the enemy.

This includes development of means of weather modification, manipulation of the ionosphere and other layers of the atmosphere, large-scale biological warfare, triggering of natural disasters, as well as **global electromagnetic warfare**. Vernadsky's efforts provided the scientific atmosphere for the launching of the most powerful current of Soviet biophysical research, that associated with Alexander Gurvich (1874-1954).

Gurvich was the first to systematically demonstrate that absorption of minute amounts of "tuned" electromagnetic radiation, down to individual quanta, can decisively influence the course of biological events.

This is now known in the Soviet literature as the "informational role of electromagnetic radiation in biological systems." In connection with this research, Gurvich developed that first "field theory" approach to the geometry of living processes, and discovered the universal ultraviolet light emission of cells called "mitogenetic radiation". He was the first to point to the capability of biological molecules such as proteins and DNA, to absorb energy at long wavelengths and reemit the stored energy at much shorter wavelengths-phenomena which are intensively studied today under the name of "multiphoton processes in non-linear spectroscopy." Gurvich was thereby a pioneer in the area of advanced research which is decisive for the most devastating forms of electromagnetic anti-personnel weapons. Gurvich's student G.M. Franck founded the Institute of Biological Physics in Pushchino, which still bears Franck's name, and is today a key center of military-related research on electromagnetic pulse effects on biological systems.

Another Gurvich disciple, Prof. Vlail Kaznacheev, heads the Medical Division of the Soviet Academy of Sciences in Novosibirsk, with close ties to the military space establishment. Kaznacheev carried out a decade-long series of experiments on the electromagnetic basis of the pathogenic action of viruses and poisons. Another member of the Gurvich school, Alma Ata biophysicist Inyushin, wrote an article in the Red Army paper Krasnaya Zvezda in 1984, declaring that breakthroughs of "revolutionary significance" were being made in the optical biophysics field. Since then, Inyushin's name completely dropped out of Soviet scientific literature, indicating that he is now working in a top secret program.

Indeed, almost the entirety of the huge Soviet effort in biophysics of the Gurvich-Vernadsky variety has "gone underground" since 1983-84.

One indicative area of continued Soviet publications is on the "non-thermal" effects of low-level microwave radiation in the millimeter wavelength band. Since at least the late 1960s, a U.S.S.R.-wide network of more than 21 institutes has conducted research into this field, led by Prof. N.D.

Deyatkov of the Soviet Academy of Sciences. This research is continuing to this day. Late last year, for example, the Soviet microwave technology journal Radioelektronika published two long papers on biological effects, written by known members of the Deyatkov group. These papers discussed the mechanisms by which millimeter radiation interacts with internal electroacoustical oscillations, notably in cell membranes, to generate the resonant, frequency-dependent effects documented in a large number of experiments. The significance of these sorts of publications is not that they give a direct "peek through the window" at weapons-development; rather, they indicate an orientation of "civilian" basic research programs to the type of phenomena of relevance to weapons applications.

(It is unlikely that electromagnetic anti-personnel weapons would work with pure millimeter waves. Millimeter-band "harmonics" would be included in complex pulse forms, however.)

Unfortunately, Devyatkov's area of research was all but closed down in the U.S., following the conclusion of "biological warfare accords" between the U.S. and the U.S.S.R. in the early 1970s-another concession from which the Soviets have extracted great strategic profit.

The capability to generate controlled high-power pulses of electromagnetic energy has long been a top priority area for Soviet applied physics research and development.

It even has its own name in the Soviet literature, for which no direct equivalent term exists in the West: sil'notochnaya elektronika. It includes things like explosive cathodes and other technology for high-current relativistic particle beams, energy storage and pulse compression technology, non-linear plasma devices such as the plasma focus, "explosive" MHD power generation, EMP simulators, etc. Significant parts of this R&D are being carried out in "purely peaceful" programs, such as **controlled fusion energy and accelerators for elementary particle research. So, Soviet development of gyrotron devices for ultra-high-power microwave generation has the "official purpose of providing means for heating plasmas in experimental fusion reactors.** And, in fact, gyrotrons can do exactly that. But, the technical advances thus made-or acquired from the West-under "civilian" fusion research programs with international cooperation, can immediately be transferred to secret military programs.

Thus, Rudakov's huge "Angara V" electron beam pulse generator, allegedly constructed for fusion research, was obviously motivated by some other reasons than just the publicized ones.

Soviet development of high-power magnetohydrodynamic (MHD) generators is another interesting example. For many years, Vice-president of the U.S.S.R. Academy of Sciences E.P. Velikhov has directed a large program to perfect this technology for direct conversion of chemical combustion energy into electricity, for a variety of "peaceful" applications. These are figures from 1977, ten years ago. Given intensive Soviet work in this field in the intervening period, we must assume that they can obtain the same or better output with much smaller devices. **These and the famous "Pavlovskii" pulse generators play an important role in the Soviet's own version of the SDI, as power sources for beam weapons. They provide enough power for very devastating types of mobile antipersonnel weapons.**

The heart of an EP anti-personnel weapon is the system for generating and emitting the electromagnetic radiation. Here the Soviets can draw from their vast experience with all types of military radars, including the large phased-array installations at Krasnoyarsk, Pechora and elsewhere, as well as

advanced research into relativistic electron beam devices for ultra-high-power EP generation.

The article by Robert Gallagher documents how the Soviets have led the world in development of pulsed gyrotrons and related EP devices covering a wide frequency range.

This new hardware is being "spun off" in great quantity and variety as a product of the sil'notochnaya elektronika thrust. Nor have the potentialities of solidstate been neglected. While the Soviets may lag in some of the most exotic microchip technology, they are quite familiar with **solid state radar systems applicable (among other things) to miniaturized EP weapons. "Briefcase size" EP weapons for "close-in" Spetsnaz assassinations and related missions, are well within Soviet technological capability.** Recently, it was announced that the U.S.S.R. intends to use its new, heavy space-lift system Energiya, with five times the payload of the American space shuttle, **to station some very large structures in orbit.** Besides a larger version of their present space station, one of the plans is for a huge "solar power station" which would relay its energy to Earth via a high-power laser or a beam of microwaves. (A similar project was considered by the U.S. NASA, but rejected because of the of inadvertently irradiating populated areas.) With a proposed several gigawatts of continuous power at its disposal, **such a station could carry out weather modification as well as electromagnetic warfare on a large scale.**

Of course, compact nuclear reactors (which the Soviets are already using in radar reconnaissance satellites), especially in a pulsed mode, and MHD devices, could be much better energy sources for a military system. given a sufficient supply of energy, a large, phased-array EP system in orbit could attack entire cities, with loss of life comparable to nuclear weapons, but without collateral damage.

However, it is not necessary to station EP weapons in space in order to have firepower on a "strategic" scale. The Soviets have been early masters at combining their knowledge of geophysics and non-linear wave propagation to develop novel types of over-the-horizon radar. Using combinations of phased-array installations with a very large effective aperture, it is theoretically possible to project lethal electromagnetic signals over thousands of kilometers.

At shorter ranges, incoming missiles and aircraft might be destroyed using EMP-like effects. Soviet activities should be closely watched in these respects, especially in view of the potential "dual purpose" exploitation of certain facilities. (The following list is not intended to be comprehensive, but **merely exemplifies extensive Soviet scientific efforts in fields relevant to EP weaponry.** The interested reader will find further literature through the cited publications.)"
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See also Michael Lipkind, "Gurwitschs Theorie vom Biologischem Feld," in the German-language magazine Fusion, 8.Jg., 1987, Nr.4. V.M. Inyushin, D.R. Chekurov, Laser Biostimulation and Bioplasma, (Russian), Alma Ata 1975. S. Kassel, "Soviet Development of Gyrotrons," RAND Corp. Report R-3377-ARPA, May 1986. V.P.Kaznacheev, L.P. Mikhailova, Ultraweak Radiation in Intercellular Interactions, (Russian) U.S.S.R. Academy of Sciences, Novosibirsk 1981. V.M. Koldayev, "Pharmacological Correction of Acute Microwave Effects," (Russian) Biologicheskiye Nauki, 1, 1987. V.I. Vernadsky, The Biosphere, 1926 (Russian and French editions). Editor's note. Here are more substantiating articles in support of Tennenbaum's information. It is in list format. Liebig, Michael. (1988). Radio-Frequency Weapons: Strategic Context and Implications. Executive Intelligence Review. Pg. 42.

Michael Liebig is Managing Director of EIR nachrichtenagentur GmbH in Wiesbaden, Federal Republic of Germany. The following paper was presented at conferences in the Federal Republic of Germany, France, and Italy.

"...It is obvious that the whole complex of RF technologies, precisely because of the vast potential for military application, is highly classified. Detailed information on RF systems is extremely scant in the public domain. Yet we do know the scientific-technological basics of RF systems and their interaction with biological and other soft targets. While operational RF weapon systems may not yet exist as such, it can be stated categorically, that not just research, but development work towards operational RF weapons, is underway in the East and West, especially in the East.

Pg. 40. "Radio-frequency weapons" is a misleading name, carried over from a pragmatic understanding of earlier stages of electronic warfare. For example, it was thought, mistakenly, that the use of microwaves as anti-personnel weapons depended upon the heating effects of such waves upon targeted material.

Today, it has been shown that properly tuned electromagnetic pulses have mortal effects at levels of energy-deposit as low as two or three orders of magnitude below those required to kill cell-tissue by means of induced thermal effects. This comparison illustrates the importance of the term "non-linear effects."

The most important of the near-term applications of non-linear electromagnetic effects are in the domain of optical biophysics, either as strategic or tactical anti-personnel weapons, or to produce global effects

within the biosphere surrounding those personnel. However, there is also the prospect of disintegrating non-organic material, as well as the disruption of apparatus, through the same class of technologies. In applying the notion of technological attrition to all such electromagnetic-pulse weapons as a general class, it is the principles causing all of the indicated range of effects which must be considered as a unit for purposes of shaping strategic doctrine.

All of the weaponry based upon "new physical principles," including lasers, particle beams, and non-linear electromagnetic-pulse effects, belong, together with the role of high temperature superconductivity, to the domain of sub-atomic physics. Modern high-energy physics, especially that focused upon so-called "force free" status of plasmas, shows that sub-atomic phasespace has a distinct, Kepler-Gauss sort of inherent curvature. It is also shown, that non-linear effects of coherent electromagnetic pulses, as phenomena of the macro-scale, are rooted in the non-linear physics of the curvature of "force-free," least-action states in the sub-atomic domain.

One of the most important lines of inquiry to this effect today, is modern optical biophysics' attention to the decisive role of precisely tuned, inherently coherent electromagnetic pulses in living processes. Conceptually, this new work belongs to the tradition of Pasteur's work on optical biophysics and the definition of living processes presented by Luca Pacioli and Leonardo da Vinci nearly 500 years ago.

Essentially, modern instruments permit us to detect and measure localized coherent pulses in the range of quanta of emission, leading into what is called today "non-linear spectroscopy" of living processes. The comparison of the results obtained in this way in biological research, with lessons learned from high-energy physics of forcefree plasma states, is the key to design of strategic and tactical antipersonnel assault weapons and related applications."

Frazer, James W. PhD and Frazer, Joyce E. (1988, Mar.Apr.) How Radiofrequency Waves Interact with Living Systems. 21st Century. Pg. 50. Dr. Frazer, adjunct professor of pharmacology, University of Texas Health Science Center San Antonio. Dr. Frazer was featured as a weapons expert on CNN's Special Report, 1985 and discussed his ten year Air Force career and on electromagnetic effects. His conclusion that "radiofrequency weapons could be the wild-card in the arms race."

"The nonthermal effects of electromagnetic radiation on living cells offer clues as to what is life, as well as to understanding **Soviet research on the possibility of controlling human thought and emotional experience.**" Pg. 54. "In earlier work, Adey's group had shown a modulation sensitive effect on calcium efflux from chick brains. **These findings created considerable controversy,** but were completely substantiated by work done in Environmental Protection Agency (EPA) laboratories at Research Triangle Park in North Carolina. The subsequent history of their group is of interest.

Adey's group continued with practical and theoretical **studies of nonlinear**

response of biological systems to low-intensity fields-but with nearly annual cuts in funding levels. The federal agencies monitoring that work have been fragmented and the people either left or transferred to other fields of endeavor. Price, Frazer, Mori, and all of the people performing the original lymphocyte experiments have resigned, been victims of reductions in force, gone into other areas of research, or retired. Thus, an area of research of great interest to theoretical biology has been very effectively choked off."

Wellborn Stanley & Danilooff, Nicholas.(1984, Oct. 1`). Can U.S. Hold Its Lead Over Soviets in Science Race? U.S News and World Report.Pg 53.

"The Soviets, for example, experiment extensively in parapsychology and psychic warfare," in modification of weather and in **the biological effects of microwave and other electromagnetic fields**. Much of this research is given high priority. Commission on Security and Cooperation In Europe 102nd Congress First Session. The Moscow Meeting of the Conference on the Human Dimension of the Conference on Security and Cooperation in Europe 10 Sept.-4 Oct.1991. Pg. 9.

"Many individual Soviet citizens also attended, seeking help in redressing grievances against the Soviet system after decades of lawlessness and arbitrary administration of justice. Complaints ranged from unjustified loss of employment **and placement in psychiatric hospitals to subjection to space-based rays launched and maintained by Soviet security organs**.

The U.S. delegation was able to do little more than listen to these individuals and forward their complaints to the Soviet delegation or the relevant republican authorities, suggesting to the Soviet delegation that it address the problems of these individuals."

Baker, CB.(1997?). Youth Action News.Pg. 6-7 the 1980 book: Human Possibilities: Mind Exploration in the U.S.S.R. and Eastern Europe, was written by a leading U.S. scientific researcher in parapsychology, Stanley Krippner, Ph.D. The book described the 1960 discoveries of Y.A. Kholodov, a leading Soviet expert on the effects of electromagnetic fields on the brain. ...Krippner continued: "These Soviet attempts to construct holographic models resembles the work of Karl Pribram, who has suggested not only that sensory information is relayed in bits and pieces to be sequentially reconstructed by neuron interaction, but also that sensory cells can interact as to form the sort of interference pattern typified by a hologram." Baker, CB.(1984?).Electronic Mind-Control.

"At the 1979 U.S. Psychotronic Association conference, Lt. Col. Thomas E. Bearden provided additional information about soviet usage of ELF for mind control ...In 1968, Litisitsyn, who happens to run the documentation center (in the U.S.S.R.) which has all the medical information there, wrote a paper...reporting that the U.S.S.R. had 'succeeded in controlling the induction...of images and sensations... into another biological system--a human being." "...Litisitsyn received his Ph.D. in highly esoteric, nonlinear, mathematical brain-wave theory... "Litisitsyn's paper reported that the Soviets broke the genetic code of the human brain. "they worked out 23 EEG band-wave lengths, 11 of which were totally independent. So if you can manipulate those 11,youcan do anything to that living system it normally can do itself--anything at all. This is all from a paper in the (U.S.) Defense Documentation Center--1968, translation from the Soviet Union."

"...the relationship between Soviet ELF signals and the Litisitsyn paper was described in a 1978 documentation packet on ELF issued by the Planetary Association for Clean Energy. ...

The P.A.C.E. documentation continued: "Litisitsyn also reported that the Soviet scientists have developed and fitted a theory to actual brain wave measurements, and could insert material on electromagnetic carriers, directly into the brain and could control whether or not the process stimulated conscious awareness of the individual." ...The monitoring of time coherent and phase locked psychoactive modulations suggests strongly the following: The psychoactive modulation effectively locks -in the multiple carrier frequencies (say 11 to 23). On these locked -in multichannels, braincoded information is inserted, feeding it directly into the captured targetbrains."

"Potentially, almost anything could be inserted in the target brain/mind systems., and such insertions would be processed by the biosystems as intercranially-generated data/effects. Words, phrases, images, sensations, and emotions could be directly inserted and experienced in the biological targets as internal states, modes, emotions thoughts, and ideas...."

Wortz, Edward C. et al. (198?) An Investigation of Soviet Psychical Research. in Mind at Large. pg. 235.

"The term psychotronics was coined by a French journalist after the analogy with electronics, bionics, nucleonics, and so forth. the Soviets have devised their own term-psychoenergetics. Pg.249

"A review of possible NBIT (novel biophysical information transfer) transmission mechanism that are compatible with current modern physics yields three schemes.

1. VLF and ELF electromagnetic waves.

2. Neutrinos, based on the photon theory of neutrinos.

3. Quantum-mechanical waves, based on the schizophysical interpretation of basic quantum mechanical theory. Presently, most U.S. and soviet experiments on psychic phenomena, as well as the use of the law of parsimony, would point to ELF/VLF mechanisms, but the other two possibilities cannot be ruled out.

Chapter Four

What Scientists are saying about brain research? What physics, engineering and biology is needed to develop mind control technology? What do scientist believe it takes to decode the brain? What is the level of neurological research today? The answers are conclusive. Will Russian and Soviet scientists develop neurological weapons on animals or humans? It is logical to believe the many claims by victims that brain functions and every nerve of the body can be controlled remotely with current technology. Here is a list of what distinguished scientists are saying about neurotechnologies. These are just a few of many examples.

Russell, Christine. (1976, Feb. 23). Are Computer Hookups to the Brain Next? The Ultimate in Technology Predicted. Washington Star.

"...Such a prospect, dependent upon progress in 'breaking the internal codes of the human mind," might be possible in as little as 20 years or may take "several decades more," according to Dr. Adam V. Reed.[Rockefeller University scientist]. But the 30-year-old experimental psychologist, who

was earlier trained as an electrical engineer, expects to see "electronic extensions" of the brain within his own lifetime. His futuristic speculation was part of a symposium on **"Man-Computer relations" yesterday at the American Association for the Advancement of Science meeting** here. Reed acknowledged the need to protect against the dangerous applications of "thought control" -turning human beings into virtual robots-but his emphasis was on what he saw as potential benefits.

...The main limit, however, is the difficulty of unraveling the internal language of the brain. ..."I think there will necessarily be intermediate steps before people would even want direct hookups," said Dr. John McCarthy of Stanford University's department of computer sciences."

Greenfield, Susan.(1995). Journey to the Centers of the Mind. Towards A Science of Consciousness. W.A. Freeman & Co. NY. Pg. 196.

"If we could explain exactly how consciousness is generated by groups of neurons under certain conditions, it would also mean that we had the ability to manipulate on e another's consciousness to such a degree that it could lead to the effective annihilation of the individual.

This specter is comparable to the ultimate, Frankenstein-like feat of the molecular biologist in creating organic life. Whether or not such a world would be a good place in which to live can only again be the stuff of science fiction."

Connor Steve.(1995, May 21).Science:The Last Great Frontier: The Brain is the Ultimate Enigma.The Independent(London).Pg52.

"The human brain is the most complicated structure in the known universe. ...No superlative, it seems, is too grand to explain what is happening to brain research, precisely midway through the **international "Decade of the brain"** **Gerald Fischbach, professor of neurobiology at Harvard,** believes philosophers inquiring into the human condition can no longer ignore the brain experiments that are "among the most urgent challenging and exciting" in all of science. "Our survival and probably the survival of this planet depend on a more complete understanding of the human mind." he says. Cornwell, John.(1994,Sept.4).A Mindfield For the Brains Trust.Sunday Times. Lexis- Nexis.

"...Penrose the 62-year old Rouse Ball Professor of Mathematics at Oxford...who made his name by collaborating with Stephen Hawking in the 1960s on black holes, was drawn to the consciousness debate in the late 1980s... **...In Shadows of the Mind, Penrose demonstrates that mathematics and physics are more central to the problems of consciousness than computer science or even biology. At the same time, he urges that physics must take consciousness into its scope. "...We must look for a feature of the brain," he says, "that can mediate between the microscopic world of quantum physics and our everyday realm of classical physics."**

According to the view prevalent in neurobiology, brain action is entirely controlled by the interconnected system of "neuron switches" and nothing else: there is no plausible role for the subtleties of quantum action. But basing himself on research of **Stuart Hameroff, an anaesthetist at the University of Arizona, and the work of Herbert Frohlich, a noted physicist who has made important advances in the study of superconductivity, Penrose believes he has come up with a suitable site and structure for quantum activity in the brain.** In his new book he describes how cell structures known as microtubules, found in the branches of neurons (brain cells), have the ability to shrink and expand between the microscopic

realms of the quantum and our familiar world of switches," says Penrose. "The microtubules are themselves microscopic tubes made of proteins called tubulins. Each tubulin individually seems to behave something like a switch, increasing neuronal numerosity by something like 10,000m" If Penrose is right, his book may be the first accessible report to a general readership about the site, if not the actual substance, of **the Holy Grail of consciousness the precise point where quantum activity interacts with classical physical activity in the brain.** ...and by body-soul dualists such as the veteran neurophysiologist Sir John Eccles, who believes that a quantum physical effect mediates our spiritual souls and our physical brains.

...Our conscious brains, he declares, are woven from subtle physical ingredients that somehow enable us to take advantage of the profound organization of our mathematically underpinned universe...

...Penrose confesses he is very far from explanations; but he is adamant that no clear answers will come unless the interrelating features of physics, mathematics, biology and psychology are seen to come together... Jibu, Mari, Hagan, Scott, Hameroff, Stuart R., Pribram, Karl H., Yasue, Kunio. (1993, August 10) Quantum Optical Coherence in Cytoskeletal Microtubules: Implications for Brain Function. *BioSystems* 32 (1994) 195-209. "Abstract 'Laser-like,' long-range coherent quantum phenomena may occur biologically within cytoskeletal microtubules. This paper presents a theoretical prediction of the occurrence in biological media of the phenomena which we term 'superradiance' and 'self-induced transparency'. Interactions between the electric dipole field of water molecules confined within the hollow core of microtubules and the quantized electromagnetic radiation field are considered, and microtubules are theorized to play the roles of non-linear coherent optical devices. Superradiance is a specific quantum mechanical ordering phenomenon with characteristic times much shorter than those of thermal interaction. Consequently, optical signaling (and computation) in microtubules would be free from both thermal noise and loss.

Superradiant optical computing in networks of microtubules and other cytoskeletal structures may provide a basis for biomolecular cognition and a substrate for consciousness.

Moravec, Hans. (1988). *Mind Children The Future of Robot and Human Intelligence*. Editor's note; Moravec is an MIT professor, well-known and was on the Learning Channel on Dec 16, 1997 on the program Future Fantastic. He explains artificial intelligence and replacing the brain with a computer. "Perhaps, with advances in high-resolution scanning, it will be possible to achieve this effect without messy surgery: you might simply wear some kind of helmet or headband that monitored and altered the interhemispheric traffic with **carefully controlled electromagnetic fields**.

Rucker, Rudy. (1997, April 25). *Imagined Worlds*. International Herald Tribune. Pg. 4. "By Freeman Dyson. ...Harvard. Reviewed by Rudy Rucker. "The dominant science of the 21st century will be biology." [physicist] Dyson expects great advances in two areas of biological knowledge: the gene and the brain. He suggests that the first may give us pet dinosaurs, and the second may bring about "radiotelepathy."..."Radiotelepathy" is a word coined by Dyson to express a surprising but logical idea: You could have something like a cordless phone inside your head. That is, "After the organization of

the central nervous system has been explored and understood, the way will be open to develop and use the technology of electromagnetic brain signals."

Dyson, Freeman. (1997) *Imagined Worlds*. President and Fellows of Harvard College. Acknowledgments.

"This book grew out of a set of lectures given in May 1995 at the Hebrew University of Jerusalem... ..The idea of radiotelepathy first appeared, so far as I know, in the sciencefiction novel Last and First Men, written by Olaf Stapledon, in 1931, ...in which the cells of a multicellular creature communicate with each other by means of electric and magnetic fields...

The chief barrier to progress in neurophysiology is the lack of observational tools. To understand in depth what is going on in the brain, we need tools that can fit inside or between the neurons and transmit reports of neural events to receivers outside. ...observing instruments...with rapid response, high band-width and high spacial resolution...There is no law of physics that declares that such an observational tool to be impossible. We know that high-frequency electromagnetic signals can be propagated through brain tissue for distances of the order of centimeters. We know that microscopic generators and receivers of electromagnetic radiation are possible. We know that modern digital data-handling technology is capable of recording and analyzing the signals emerging from millions of tiny transmitters simultaneously. All that is lacking in order to transform these possibilities into an effective observational tool is the neurological equivalent of integrated-circuit technology. We need a technology that allows us to build and deploy large arrays of small transmitters inside a living brain, just as integrated-circuit technology allows us to build large arrays of small transistors on a chip of silicon. ...Radioneurology is in principle only an extension of the existing technology of magnetic resonance imaging, which also used radio-frequency magnetic fields to observe neural structures. A rough estimate based on the available band-width indicates that a million transmitters could be monitored through each patch of brain surface with size equal to the radio wave-length. The factor of a million is the ratio between the radio band-width, of the order of hundreds of millions of cycles per second, and the band-width of a neuron, of the order of hundred of cycles...."

Greenfield, Susan. (1996, Feb.25) *Science: From Socrates to Silicon Chip?;* Artificial Intelligence has evolved so far... So are computers nearly conscious? The neuroscientist Susan Greenfield argues that it all depends on what 'conscious means.' "...Hence there is obviously a strong chemical-selective element in determining consciousness. ..Admittedly, advanced machines are no longer in thrall to digital on/off operations, and a silicon "retina" and "neuron" have been built with analogue (ie dimmer switch) properties.

Superconducting Quantum

Interference Device (SQUID)

This is a list of excerpts from books and articles to demonstrate the level of brain mapping and reading today. SQUID seems to be the basis of classified technology used to read brainwaves remotely. In The Brain Code,

Mechanisms of Information Transfer and the Role of the Corpus Callosum by Noram D. Cook, 1986, he writes Phrases such as the 'brain code are used to describe the set of fundamental rules concerning how information is stored and transmitted from site to site within the brain. ...how large groups of neurons transmit the images, thoughts and feelings which we suspect are the fundamental units of our psychological lives. ...The perspective on brain function discussed in the following chapters is not claimed to be a complete unraveling of the brain code, but I do believe that it is the beginning of same and that the direction of future developments is already clearly indicated."

Coyle, Anna. (1992, Sept.14). Science and Technology: The Machine That Watches You Think. Independent (London). Pg.14.

"Doctors and medical scientists soon will be able to watch the human brain "thinking". With the aid of a device no bigger than a pinhead, they will be able to see exactly where and how electrical signals are traveling around the brain. ..."We are aiming to build up an image of where the current is flowing," says Dr. Steven Swithenby, director of the Biomagnetism group at Open University... ..

Squid is the acronym for superconducting quantum interference device, and it measures magnetic flux or field extremely accurately at ultra-low levels, such as the level reached when a group of neurons in the brain is triggered. The device is made of a ring of superconducting material, usually niobium metal, a few millimetres wide, with a slice of insulator, a few atoms thick, sandwiched into the loop. when an electric current is applied to this superconductor, the flowing current generates a magnetic field around the wire loop. Inside the superconducting loop this magnetic field is extremely sensitive to any changes in magnetism. If a change in magnetic field is detected, the current flow in the Squid changes to re-adjust the field strength to counter the external force. ...But there is still the problem of interpreting the information. "We can look at what is going on in the head, but it takes a lot of mathematics to unscramble the whole mess so that we can make a sensible image,"

Dr. Swithenby says. ...

The magnetic field generated by the brain in response to an external stimulus, and measured by the Squid, is about 100 millions times weaker than the Earth's magnetic field, and a million times weaker than the magnetic fields around overhead power cables. ...

A less expensive and more practical approach, used at the Open University, is to couple the Squid to another device known as a **gradiometer**. In effect the gradiometer is a matched pair of (nonsuperconducting) magnetometers placed between the Squid and the patient's head. One of the pair measures the external magnetic field outside the brain, the other measured the total field, including the contribution from the brain, and the difference between the two is measured by the Squid....The so-called high - temperature superconductors-metal oxides that can work at temperatures of up to 100 degrees above absolute zero- are the next stage in the development of workable machines.

..."In three or four years' time, who knows what Squids will be made of?" Squids are not new: they were first postulated by the theoretical physicist Anthony Leggett at the University of Illinois in the early Eighties."

Author's note. These articles give examples of how thoughts could be detected remotely. It is not impossible, especially with the will to develop this technology before the Soviets do, for example.

Hanley, John M.D. (1985, June 17). *Aviation Week*. Pg. 156.

"...It has never been necessary to stick something into pilots, or anybody else for the purpose of obtaining brainwave signals. It was pointed out 50 years ago by B.H.C. Matthews that non-invasive scalp electrodes provide the necessary sensing, and that is the method most in use around the world today. As for sticking something onto pilots, **the evolution of sensors has a branch of non-adhesive, contact electrodes, highly stable examples of which were developed in our Space Biology Laboratory almost 20 years ago under NASA contracts, and put to practical use in a variety of environments, both space and terrestrial. The continued evolution of the electrode has inevitably traversed the path from nonadhesiv and contact to remote, non-contact sensing. Fourteen years ago, Adey and Silver, of the University of California at Los Angeles and Aerospace Corp., respectively, at that time, proposed cryomagnetic sensing of the EEG. Magnetoencephalograms were obtained by Cohen of the Massachusetts Institute of Technology one year later.**

Moreover, sophisticated machine recognition of EEG correlates of states of awareness from the subtleties of pilot reclination to sleep in the space environment have been achieved within the last two decades. Clearly, dogmatic assertions that present technology has remained at the stickon or -in electrode and gross delta wave era belong with scriptural championing of slingshots as state-of-the-art weaponry.

No author. (1989, July 5). *Magnetic Fields of the Brain*. PR Newswire. Lexis-Nexis.

"The human brain is alive with pulsating magnetic fields. ...The brain's nerve cells, called neurons, are triggered by small electrical currents. This has been known for decades and doctors routinely record the intensity and patterns of these electrical brain waves. ...Today, highly sensitive detectors can spot even these faint magnetic fields and [physicist Samuel] Williamson a member of the American Physical Society, and his colleagues are busy mapping the brain's magnetic activity.

Every brain function, from imagining a pay raise to lifting a forefinger, uses the neurons of a specific location. Detecting magnetic fields can pinpoint these geographical areas. In one instance, Williamson discovered which part of the brain generated a magnetic field when a subject moved a forefinger. Moving the thumb produced fields from a slightly different spot. "Our sensory and motor systems are tied to highly specific brain areas," says Williamson. "in one experiment we passed a brushover the tip-center and base of a person's finger. We found that this produced magnetic fields from three distinct areas of the brain." Magnetic research of the brain is of great interest to surgeons, doctors, and psychologists.

With this tool specific brain locations are being linked to specific body activities. In the area of psychology, monitoring the brain's magnetic activity is helping determine the nature of imagination and thought processes. ...this feature is from the American Institute of Physics' Science Report."

No author. (1996, Oct. 8). *Pictorial Proof of Brain Damage Caused by Cocaine and Alcohol Seen in New Quantitative EEG Studies: BEAM Study Provides New Light on Brain Disorders.* PR Newswire.

"Measurements of "brain waves" using state-of -the-art **quantitative electroencephalography (QEEG) -- or brain electrical activity mapping (BEAM)** demonstrate that both cocaine and alcohol abuse/dependence significantly worsen such pre-existing brain abnormalities as attention-deficit hyperactivity disorder (ADHD), major depression, mental distress, anxiety disorder, and paranoid schizophrenia, according to medical research by Eric R. Braverman, MD. and Kenneth Blum, Ph.D. both affiliated with the PATH Foundation, a not-for-profit scientific foundation of Princeton, New Jersey.

...since they[QEEG and BEAM] are relatively easily, quick and potentially inexpensive to administer...Unlike other brain imaging techniques, it can be administered in a doctor's office. ...Other work by Drs. Braverman and Blum, as well as by other researchers, suggests that a mentally ill population--including teens and adults--have strongly disturbed brain waves even prior to their substance abuse. This study again documents that the mentally ill population have brain electrical and chemical imbalances. ...BEAM is a brain stress test using light, sound, cognition, and electrical stimulation to generate dramatic pictures of total brain health..

High-temperature Superconductors

(HTSC) contains the theory and basis for the technology used for remotely detecting brainwaves from a distance. Currently the military is developing it for remote sensing. While this may not be the classified mind reading technology used today, the point is to see that the level of technology is possible and the scientific theory behind mind reading can be figured out, even if it is classified. Please note that the Jonathan Tennenbaum article mentions HTSC and it's use for mind control weapons. Here is a list of articles on HTSC with brief comments.

Hewish, Mark. (1992, June 1). *High-temperature Superconductors.* International Defense Review. Vol.25. No.6; Pg. 624.

"The United States government Office Of Technology Assessment believes that electronic components using high-temperature superconductors (HTSCs) will be available by the mid-1990s....DARPA(the US Defense Advanced Research Projects Agency) has awarded several contracts for work on HTSCs. E-Systems'Melpar Division leads a team--including several universities and specialist companies such as Superconductor Technologies and Conductus--that has a \$9.7 million contract from the agency to demonstrate a feasible approach to defense applications of HTSCs by 1994. ...HTSCs first made their appearance in 1986, when two researchers at the IBM laboratories in Zurich--who won a Nobel prize for their work...

Radio-frequency energy encounters some resistance even in a superconductor, but this is negligible at frequencies below 1 GHz.

...Most radars of military interest operate at frequencies below 120GHz...
...Superconductors additionally exhibit the Meissner effect.

A magnetic field will not penetrate a superconductor cooled to below its transition temperature.

This effect is exploited in electromagnetic rail guns, and superconductors are also almost perfect materials for magnetic and electromagnetic shielding. SQUIDS (superconducting quantum interference devices) have military applications in magnetometers used to detect submarines and mines. SQUIDS can detect the most tenuous magnetic fields, even those generated by brain cells. They exploit the properties of a Josephson junction, which is constructed from two superconductors separated by a non-superconducting layer. Lockheed has built an HTSC SQUID... ..The phenomenon of superconductivity was discovered in 1911, but the first high-temperature superconductors (HTSCs) did not become available until 75 years later.

Rose, Stephen. (1994, Dec.1). Off Line: *The Life of Brain*. Guardian (London). Pg.14.

"...Helsinki is the site for Europe's most powerful neuromagnetic measuring system. ...In 1929, the Swiss amateur physiologist Hans Berger taped a set of recoding electrodes to a person's scalp and found he could record continuous bursts of electricity pulsing through the brain. ...As every O-level student knows, where there is an electric current, there is a magnetic field at right angles to it.

So too in the brain - except that because the currents are tiny, so are the magnetic fields, around one millionth billionth of a Tesla. ...Then you can measure the oscillating millisecond fluxes of the brain in real time. Furthermore, unlike the EEG, granted enough mathematical sophistication and computing power, you get a good idea of the location of the electromagnetic source in the brain. In helsinki the neuromag is linked to an online recording system that enables an experimenter sitting outside the sealed room to scan the records of the 122 channels arrayed across the inmate's head, I was strongly reminded of that ancient philosopher's dream, a 'cerebroscope' that would enable a person to observe their own thoughts. Magnetoencephalography is the nearest neuroscience has yet got to such an instrument...."

Editor's note. The above article in bold describes as briefly as can be done, the probable scientific basis for reading thoughts remotely. It is scientifically possible. The major details almost certainly are classified.

No author. (1990, Sept.17). Professor Guy Deutscher Joins Xsirius Superconductivity Inc. PR Newswire. Lexis-Nexis.

"Xsirius Superconductivity Inc. ..., a Scottsdale firm engaged in commercializing high-temperature superconductors, announced recently that Dr. Guy Deutscher has agreed to serve as a key consultant for the company in its international effort to bring high-temperature superconductors to the marketplace.

Deutscher is one of the key innovators of the important superconducting device--the "SQUID" or Superconducting Quantum Interference Device" and holds a patent for this device. SQUIDS are used to detect extremely weak magnetic fields and are potentially useful in such applications as submarine detection and in measuring subtle electromagnetic signals from the brain. Deutscher has been professor of physics at Tel Aviv University since 1973. ..and has since established a reputation as a world-renowned authority in the field of superconductivity."

Editor's note; The following article states that remote sensing technology can be fixed in satellites. It is not impossible to develop a method for remotely reading brainwaves. The level of technology is here today.

No author. (1990, July 12). *Federal Germany Develops Superconductive Antenna For Space and Medical Use.* Xinhua General Overseas News Service. Lexis-Nexis.

"...has successfully developed a superconductive antenna for space and medical use. The antenna, made of high-temperature superconductor, can be fixed in satellites to receive the electromagnetic wave emitted by earth so that researcher can exactly determine the humidity in soil and the content of water vapor. The antenna can also be installed in medical instruments to help doctors determine the faint signals from brain and heart."

Brown, Malcolm. (1989, June 6). *Hopes for Superconductivity Begin to Fade.* New York Times. Section C.P. 1.

"...[American Superconductor Corp.]The company was founded two years ago in collaboration with scientists from the Massachusetts Institute of Technology to create high-temperature superconducting wire. ...Conductus Inc. of Sunnyvale, Calif., which draws expertise from scientists at Stanford University and the University of California at Berkeley..."

Editor's note. The above article also shows how universities, the military and private business are working closely on military technology.

No author. (1997, June 16). *Superconductive Magnetic Shield: Hitachi Group.* Comline Daily News Electronics. Lexis Nexis.

"Japan Science Foundation(JSF) has certified that Hitachi Chemical Co. and Hitachi Cable, Ltd. have successfully developed "manufacturing technology for bismuth-lineage superconductive magnetic shields." JSF, which consigned the project to the two companies, claims the shields are much smaller and consume considerably less energy than existing types. One superconductive shield, developed by Hitachi chemical, will be **used for measuring weak biological magnetic fields....** ...According to JSF sources, the former shield can dampen external magnetism by more than five digits and the later to a level close to that of geomagnetism. Editors note. The scientists are stating that the technology is possible and many other articles below indicate the interest and level of technology today. Mind Control technology is a growing area of research and victims claims of remote reading of thoughts is possible, especially since this book only lists unclassified sources.

Military and Government Research

Here is a list of articles on what the military and government are researching and how they are developing this technology. There is research into detecting and using every body signal including brainwaves, for example for pilots to fly using their thoughts and for soldiers and remote battlefield medicine. Victims claims are not farfetched. It becomes clear that the technology can be tied to victim's allegations.

Marsh, Alton K. (1979, Jan. 29). *USAF Studies Arming Weapons Vocally.* Aviation Week. Pg. 239.

"...Thus far the research has resulted in the ability to predict the perception and recognition of letters. ...The area of evoked brain response development and applications holds promise as a method of automatically

compensating for pilot fatigue. It can also assure the pilot will not make errors during the flight, by taking the pilot's brain waves through unobtrusive sponge sensors in the flight helmet.

Evoked response refers to "driving" the brain, forcing it to emit brain waves at regular intervals, either through use of light flashes in the eyes or laboratory-generated clicks in the ears.

It is research that has come into its own only in the last two years. **By measuring the amplitude of the brain waves generated,** fatigue of the pilot can be recognized. By increasing the brightness of the instrumental panel lights, the amplitude of the brain waves can be returned to their normal height, thus compensating for fatigue.

To get the "evoked response" from the pilot's brain, the instrument panel lights could be made to flash so fast that the pilot would not be aware of the flashes. **Researchers think the brain can "register" up to 145 flickers per second,** Lt. Col Robert D. O'Donnell, an experimental psychologist, said. It also could be used to prevent errors, **since scientists have discovered that responses occurring after the wave could be "locked out" electronically,** preventing a pilot from making an error,

O'Donnell said. ...The follow-on system aims a small amount of nearinfrared light into the subject's eye, causing a spot of light to be reflected off the cornea. The spot is picked up by a remote oculometer and fed to a computer, which calculates the angle between the center of the eye pupil and the spot. ...

Later, after the remote oculometer has been combined with more advanced simulation capabilities, work will be directed toward a helmet-mounted oculometer to track eye movement.

Uhlig, Robert. (1997?). *The End of Death: "Soul Catcher" Computer Chip* Due. Electronic Telegraph (England) (From CNI News).

"A computer chip implanted behind the eye that could record a person's every lifetime thought and sensation is to be developed by British scientists. ..Dr. Chris Winter, of British Telecom's (BT) artificial life team. Dr. Winter's team of eight scientists at BT's Martlesham Heath Laboratories near Ipswich calls the chip the 'Soul Catcher.' **BT's official futurologist, has measured the flow of impulses from the optical nerve and nerves in the skin, tongue, ear, and nose....**"For example, police would be able to use it to relive an attack, rape, or murder from the victim's viewpoint to help catch the criminal."

Editor's note. Delores Hejazi claimed to have experienced this. See CAHRA website under Intelligence tools.

No author. (1985, Sept.) *Advanced Technology Report.* Defense & Foreign Affairs. Pg. 35.

"...In California, it is rumored, a University-sponsored experiment has found that brain waves emitted by patient volunteers in a mental hospital have successfully controlled the switching of electric trains, making them go and stop at will.

...Sources said it even has a name by which it is known around DARPA (Defense Advanced Research Projects Agency): a "psychotronics."

Gourley, Scott et al. (1995, August 1). *Saving Lives While Saving Money: Military Medicine Moves From MASH to Star Trek*. International Defense Review. Vol. 28. No. 8. Pg. 45.

"...The US Department of Energy's Pacific Northwest Laboratory (PNL), in collaboration with the Madigan Army Medical Center, is developing an Advanced Imaging System (AIMS) that uses **ultrasound to locate and monitor internal injuries**. ...Over the next three years, PNL and Madigan will develop **a portable field prototype consisting of an imaging array, with 1024 transducers**, measuring 5x5cm; ...If initial work on AIMS is successful, it could be followed by two further phases. The first of these, lasting two years, would replace the earlier transducer array with a **conformal gel blanket** have an area of some 2500cm. a subset of the array, placed around a body cavity, would be sequentially scanned to generate a larger and more detailed image. ...a possible further phase, lasting three years, would involve developing an **"imaging bed" with an area of 1000cm**. This would contain an array of high-resolution ultrasonic transducers and perform additional functions, such as magnetic-resonance imaging, and ... PNL says that it may even be possible, by this stage, to monitor the patient's brain by using advanced electromagnetic sensors."

Bucholtz, Chris. (1995, May 3). *Thought Control A Step Nearer*. Flight International. Lexis- Nexis.

"Scientist at the Aeronautical Systems Centre (ASC) at the US Air Force's Wright- Patterson AFB, Ohio, are studying the use of brain-actuated control techniques as a means of controlling aircraft. ...In the past, the problem with thought-control techniques has been **discerning the faint electromagnetic brain signals which accompany voluntary thought from the flurry of "background noise" in the brain caused by everyday activity**. In the ASC experiments, pilots in a simulator face two fluorescent lights, which pulse at 13.25 Hz. This causes nerve cells in the subject's visual cortex to fire at the same frequency. Electrodes on their heads detect the resulting brain-wave patterns, feeding them to an amplifier and a filter. The filter picks out the 13.25.Hz waves and measures their power.

A bar scale displays a measurement of these waves, which allows the subjects to learn how to vary the intensity of their brain responses. On the simulator, heightened intensities cause it to bank to the right; depressed intensities cause it to bank to the left. ... "They say it's like learning to walk..." Project physicist John Schnurer adds..."

Scott, William. (1994, Aug. 15). No title. Aviation Week and Space Technology. "...For more than 30 years, the U.S. military services have been intrigued with the concept of linking human brains with computers or other hardware. A retired colonel confirmed that the Army conducted experiments in the 1960s aimed at controlling air defense missiles with brainwaves. More recent research attempted to improve the combat performance of U.S. special forces, which rely on critical timing and zero-margin teamwork. ...An industry scientist said that the Army's Research Institute worked on a variety of "neurotechnologies" in the mid-1980s, ostensibly abandoning the program--although there are indications to the contrary. Since these activities were classified, military officers will not comment on the success or failure of such programs. In any event, more than 2,000 "white world" technical papers and research reports describe aspects of neurophysiological work in the U.S., Europe and the former Soviet Union.

Only recently, however, has there been a concerted effort to harness research results and convert them to concrete applications. ...M Barry Sterman...A 30 year veteran of neurophysiology research, Sterman is a professor at the University of California-Los Angeles School of Medicine...Sterman's focus is on "neuroregulation," a term that highlights the neurological response to cognitive demands {of B-2 pilots}... ..A pioneer in this effort is Advanced Neurotechnologies, Inc.(ANI) of Colorado Springs, Colo. Its founder, Richard Patton, combined a personal computer, sensors, commercial electronics, a Motorola 56000 digital signal processor and proprietary software routines to create what he calls the "BrainLink" system. Sensors attached to a headband--or adhered directly on the client's scalp--detect brainwaves that approximate a traditional electroencephalogram(EEG).

Signals are amplified and converted from analog to a digital format, then fed to a Motorola digital signal processor. The DSP performs a high-resolution fast-Fourier transform, converting the time-domain brainwave signals to the frequency domain. ...teaches a client to control the display and tones, which correlate to desired brainwave patterns associated with specific mental states."

No author. (1996, March 12). ARPA Battlefield Care Project to Shake Up Medicine. Armed Forces Newswire Service.

"DOD's Advanced Research Projects Agency(ARPA) has quietly ignited the most radical series of technological changes to hit the practice of medicine since the invention of X-rays. ARPA's medical-technology stable includes an array of high-fidelity virtual-reality medical training and diagnostic simulators; satelliteaided tele-diagnostics for soldiers, now being used for Bosnia operations; tiny embedded diagnostic sensors; telerobots that let remote MASH surgeons operate on badly wounded soldiers; miniature intensive care units that automatically monitor soldiers; and infusively treat soldiers being helicoptered from front lines to MASH units; and high-speed networks that can automatically fuse data from giant databases around the world. The most crucial component of future combat care, said Richard Satava, ARPA's biomedicine program manager, is the personal status monitor(PSM), a continuously worn monitor that he would like to see woven into the soldier's clothing. The PSM would monitor a wide range of vital signs and also host external communication, GPS and other functions. Tied into the PSM might be clothing with "sensate liners," that would detect projectile exit wounds and infer the organs damaged by defining the pathway from entry to exit wounds. Today's edition of Technology Transfer Week reports Satava is particularly excited about a dime-sized PSM sensor, originally developed to fit on bumblebees for radio tracking, that is woven into clothes, and mounts a tiny radio and vital signs sensor.

No author. (1995, June1) The Power of Thought. Daily Mail(London).Pg.40.

"...special electrodes being developed by researchers at the Wadsworth Centre in Albany USA.

They attached electrodes to the scalps of volunteers and asked them to move a cursor towards a target on a video screen by thought. Tiny electromagnetic brain signals were amplified by a computer deciding when and how to move the cursor.

No author. (1995, Mar.25) .Short Takes; American Topics. International Herald Tribune (France).Lexis-Nexis.

"...The brain emits electrical signals of only a millionth of a volts or so. But studies financed by the National Institutes of Health show that these signals can be amplified enough so that by conscious effort, the subject can move a cursor on a computer screen.

Stork, David G. (1996?). Hal's Legacy 2001's *Computer as Dream and Reality*. MIT Press. Pg.164.

"Raymond Kurzweil. ...There are already precursors of such a project. For example, a few years ago Carver Mead's company, Synaptics, created an artificial retina chip that is, essentially, a silicon copy of the neural organization of the human retina and its visual-processing, as the human brain does."

Smith, Cyril W. & Best, Simon. (1989). *Electromagnetic Man*. Pg. 236.

"A team at York University's Physics Department, for example, has built and tested a 'Faraday magnetometer' under contract to GCHQ, to pick up very weak magnetic fields, possibly for use in remote eavesdropping(The times, 1988)."

Chapter Five

Here are a few articles which describe the Korean brainwashing of the 1950s. It clearly demonstrates the necessary political will to support a massive effort to control man before the Russians do, including projects to solve the mysteries of the brain for political and military purposes. The Korean brainwashing scare seems to be the event that triggered the race for the brain code.

No author. (1977, Aug.2). *Mind-Control Studies Had Origins in Trial*. New York Times.

In the summer of 1977, it may be difficult for Americans to comprehend the frame of mind of the men who nearly 30 years earlier started the Central Intelligence Agency's effort to manipulate human behavior. As some of the former high-ranking CIA men recall now, they had looked into the vacant eyes of Joseph Cardinal Mindszenty at his treason trial in Budapest in 1949 and had been horrified. They had been convinced that his confession had been wrung from him while he was either under the influence of some mysterious, mind-bending drug or that he was standing before the dock in a posthypnotic trance. The sight touched off memories of earlier "show trials" in the Soviet Union. The CIA leaders were certain the Communists had embarked on a campaign to control men's minds and they were determined to find a defense, setting out in earnest the next year-1950-with Project Bluebird...

Slesin, Louis.(19?).

"Zapped? Radiation at Greenham Common Peace Camp" The Nation.

Editorial Pg. 313. Louis Slesin editor of the publication Microwave News stated: "In The Search for the Manchurian Candidate, published in 1979, John Marks relates that in response to a **Freedom of Information Act request, the CIA told him that it had a roomful of files on electromagnetic and related techniques to alter behavior and stimulate the brain. The agency refused to release the papers, and they remain classified.**"

Subcommittee on Health and Scientific research of the Committee on Human Resources United States Senate, September 20 and 21, 1977.
Gottlieb, Sidney, Md.. former CIA agent. Pg.169.

"In the judgment of the CIA, there was tangible evidence that both the Soviets and the Red Chinese might be using techniques of altering human behavior which were not understood by the USA and which would have implications of national survival in the context of national survival in the context of national security concerns at that time.

It was felt to be mandatory and of the utmost urgency for our intelligence organization to establish what was possible in this field on a high priority basis."

Pg. 202. "Dr. Gottlieb. ...As I remember it, there was a current interest, running interest, all the time in what affects people's standing in the field of radio energy have, and it could easily have been that somewhere in many projects, someone was trying to see if you could hypnotize somebody easier if he was standing in a radio beam. ...I would remind you that the problem of radio waves and what it does to people is [an] extremely current interest in connection with events in an important embassy overseas now. There is great concern about that."

Chapter Six

The history of science, the military, corporations and government involvement from the 1940s up to today. Classified military research was used to fight the cold war. It can be seen how mind control technology could be developed out of the public eye and with the support of top officials. Teams of elite scientists were used to tackle military problems. The Cybernetics Group, Brain Research Institute, the Institute for Defense Analysis and their JASON Group and also their Golden Fleece Group are a few examples given below. Prominent scientists were given military funding generated by the race to surpass the Russians.

By looking at the nature of the scientific military organizations which sponsor Manhattan Projects, the origins of mind control research can be found. This is the point of this lengthy but very interesting information. Atomic bomb research and mind control research do follow a similiar pattern. The same corporations, military offices, scientist's names and leading officials are repeatedly found in several different sources listed below. Radiation and mind control experiments occurred in the cold war era within the same bureaucracy.

McDougall, Walter. (1985) *The Heavens and the Earth*. Basic Books.

"...the AAF, however, turned to its new advisory body, the RAND Corporation, for an independent opinion on the prospect and value of an earth satellite. ...the USAF also assigned RAND the task of "continuing studies of the potential military utility of earth satellites-including work on the use of such devices for cold war politico-psychological advantage for communications and for purposes of observation."

...In March 1954 Eisenhower summoned the Office of Defense Mobilization's Science Advisory Committee and apprised its members of the growing danger

faced by the United States....It was imperative that the best minds in the country attend to the technological problem of preventing another Pearl Harbor. The result was the Technological Capabilities Panel (TCP) Report, or "Killian report," ...Its authors included James F. Killian, later president of Bell Labs,...Edwin H. Land, inventor of the Polaroid camera ...and over forty scientists and engineers. Reporting to the NSC in a "full-dress" secret session, The Killian panel presented ... Eisenhower had commissioned another topsecret strategic review. Entrusted to H. Rowan Gaither, Jr., of the Ford Foundation, who fell ill, it was completed under Robert C. Sprague a veteran consultant from the Killian panel) and such luminaries as William C. Foster, John J. McCloy, Frank Stanton of CBS, and Jerome Wiesner. They reported ...a crash program on R & D for defensive systems, a national fallout shelter program costing upward of \$25 billion,... ..

Spy satellites proved successful beyond the most sanguine expectations of laymen(what Edwin Land and the technicians expected is unknown). ...During the same weeks the Kennedy transition team eagerly polled scientist, academic, and military and civilian strategists for their views on the shape of things to comeBy New Year's 1961,two U.S. spy satellite programs verged on brilliant success. Thanks to the energetic advocacy of Richard M. Bissell, Jr., of the CIA,... ..

The International Telecommunications Convention of 1973, which possesses treaty status, regulated the use of comsats and radio frequencies. ...By 1963 the government supplied 88 percent of the entire Caltech budget, 66 percent of MIT's 59 and 56 percent of the University of Chicago's and Princeton's and a 25 percent chunk of Harvard's and Stanford's.

Buderi, Robert. (1996). *The Invention that Changed the World: How a Small Group of Radar Pioneers Won the Second World War and Launched a Technological Revolution.* Simon and Schuster. Pg. 470.

"...For starters, with some two thirds of national defense contract R&D dollars going to sixty-eight corporations, and an astonishing 40 percent to only ten companies,... .. Roosevelt died before [Vannevar]Bush completed the Document ...Science-The Endless Frontier on to Harry Truman. It was a land mark document that formed a focal point in a lengthy congressional debate over the best method for distributing federal research funds and ensuring the scientific, technical, and economic prosperity of the Nation. ...The stalemate continued until a compromise was reached in early 1950. ... **Capitalizing on their five-year head start, the armed services, led by the Office of Naval Research,** became the main supporters of academic research and NSF's strength was diluted further by the emergence of the Atomic Energy Commission and NASA as additional funding sources."

Brown, Anthony Cave. (1982). Wild Bill Donovan. *The Last Hero.* Times Books. Pg. 802.

"...In 1948 Donovan was to find out for himself how weak the CIA had become. That year the secretary of defense, James Forrestal, invited him to **serve on a small secret committ ee consisting of Dr. Vannevar Bush, Admiral Sidney Souers, and General Alfred M. Gruenther,** to study the problems of defense against **unconventional attack** against the United states , including clandestine attack employing biological weapons, .. The subject was divided into **seven subjects for investigation: ...4. Certain**

special applications of psychological warfare(i.e., thought control or special mode, as it was called).

Becker, Robert O. & Selden, Gary.(). *Body Electric*.

"The establishment's attitude toward EMR (Electromagnetic Radiation) health effects are based on the work of Herman Schwan. Schwan was a professor in Germany during most of the Nazi era, who was admitted to the U.S. in 1947 and accepted a job at the University of Pennsylvania doing most of his research for the DOD (Department of Defense)."

Editor's note. Many scientists such as Dr. Schwan may have had a "need to know" security clearance. This is important to keep in mind because there are many examples of scientists working on parts of classified projects without knowing the whole picture.

Kaplan, Fred. (1983). *Wizards of Armageddon*. Simon & Schuster.

Pg. 189. "In 1949, a group of six Institute professors, including Bernard Brodie and Kaufmann, was hired by the social science division of the RAND Corporation in Santa Monica to do part-time work analyzing psychological warfare."

Kaplan, Fred. (1960?). *Scientists at War The Birth of The Rand Corporation*. American Heritage.

Pg. "By the Fall of 1947 the RAND staff had grown to one hundred and fifty. For anyone interested in some vague combination of mathematics, science, international affairs, and national security, RAND offered an ideal setting. There was an intense intellectual climate but no teaching obligations or boring faculty meetings.

There was access to military secrets but no military officers from whom to take direct orders."

Szulc, Tad. (1975, Dec.). *The Mind Readers and Other Tales of Science Fiction Research* by the Pentagon's Think Tank. Washington Monthly. Editor's note. This article found in a very important congressional hearing, **a must read. Subcommittee on Constitutional Rights of the Committee on the Judiciary US Senate. (1976) Surveillance Technology Policy and Implications: An Analysis and Compendium of Materials**. Pg.1036.

"...As matters now stand, scientists from the Massachusetts Institute of Technology to the University of California and a dozen other famous schools are involved in ARPA research. Some of these scientists belong to a **highly exclusive, informal group known as the "Golden Fleece,"** men and women picked in the late 1950s by the Pentagon-funded Institute for Defense Analysis for some of the most esoteric and complex defense research. ARPA, upon its birth in 1958, immediately received the benefit of the talents of these "Jasons," as they are still called. ARPA officials says that some 20 "Jasons"-an elite, informal, almost secret group-are still at its disposal. Over the years, the "Jasons" have been holding quiet brainstorming sessions at hideaways around the country to feed ARPA ideas."

Science Against the People. Berkeley Sespa. **The Story of Jason-The Elite Group of Academic Scientists who, as Technical Consultants to the Pentagon, have Developed the Latest Weapon Against Peoples' Liberation Struggles: "Automated Warfare."**(1972) Pg. 3. "At the end of World War II many of the country's leading scientists, who had been involved in such war research as the atomic bomb and radar, left full-time government work and returned to

the college campuses . The military, of course, did not want to lose all this valuable talent. In addition to its own "in-house" laboratories, the Defense Department sought to establish ongoing consulting liaison with first-rate scientists. At first this service was obtained through the RAND corporation and some scientific advisory committees attached directly to the Pentagon; some scientist also consulted for industrial corporations working on defense contracts. The industrial consulting jobs did extremely well, but the scientists involved felt that they were not close enough to the center of power to influence policy decisions. On the other hand, scientists in Washington often felt restricted by the particular government agency they consulted for and also found the government consulting fee scales to be very low. Therefore, the idea of a new, independent research and consulting organization arose:

This was the Institute for Defense Analyses, IDA. Set up nominally as a private, non-profit corporation, IDA worked on the basis of contracts with the Pentagon for particular research problems of interest to the military. IDA could determine its own salary scales and it hoped to attract high calibre scientists with the promise of considerable "freedom" of their choice of problem to be worked on.

A group of the very brightest young scientists was recruited into a subgroup of IDA called Jason. The whole success of this enterprise depended upon establishing it as a mark of highest prestige to be invited into this elite group. **IDA's Cold-War Ideology.** The original political-philosophical outlook of IDA and Jason was boldly stated in terms of cold-war ideology. Their literature of ten years ago told of the creation of IDA as arising from "the inescapable realization that International Communism is imperialistic in nature and that its goal is no less than world domination." ...**"Jason and the "McNamara Fence" The most detailed public account of Jason's contribution to the Vietnam War is contained in the Pentagon Papers: the 1966 Jason summer study which gave birth to a new form of technological warfare, now known as the automated, or electronic battlefield.**

...Early in 1966, a clique of Harvard-MIT scientists with high level connections in Washington persuaded Defense Secretary Robert McNamara to sponsor a special study on "technical possibilities in relation to our military operations in Vietnam." With this prompting, McNamara formally requested the scientist to look into the feasibility of "a fence ...warning systems, defoliation techniques and area denial weapons."

This special scientific study group was assembled under the auspices of the Jason Division of IDA, the group of 47 scientists represented "the cream of the scholarly community in technical fields"... "a group of America's most distinguished scientists, men who had helped the government produce many of its most advanced technical weapons systems since the end of the Second World War, men who were not identified with the vocal academic criticism of the Administration's Vietnam policy."

This Jason study group met during the summer of 1966, starting off with a series of briefings by high officials from the Pentagon, the Central Intelligence Agency, the State Department and the White House. They were given access to secret materials. ...thus we are drawn to conclude that the clique of top-level scientific advisors were instrumental not only in initiating the electronic battlefield ideas(1966), not only in helping the implementation of the system in Vietnam(1968), but also in extending this

new warfare system to a world-wide capability(1970). ...The technological wing of the military-industrial complex does not necessarily win wars. We have seen that it certainly can help prolong them. ...**Since most Jason work is highly classified, and it is customary to keep secret the titles and even the very existence of most highly classified reports, we can conclude that this information represents only the tip of the iceberg.**

...One of the distant branches of the sensor development has been described by **Joseph A. Meyer, a computer specialist working for the National Security Agency and funded by the Department of Defense ("Crime Deterrence Transponder Systems", IEEE Transactions AES-7 no. 1, January 1971):** "A transponder surveillance system is based on three ideas. First, parolees, bailees, or recidivists will each carry a small radio transponder, which cannot be removed, as a condition of their release. This transponder will emit a radio signal which gives a positive and unique identification.

Second, a network of surveillance transceivers will interrogate transponders in a neighborhood. Third, a realtime computer will receive the transponder reports, update location and tracking inventories for each subscriber, and control the surveillance process. Every subscriber must be accounted for at all times. ... For urban areas, a mesh of transceivers would scan the streets, communicating with central computers to provide a public Surveillance network." Meyer goes on to discuss special problems: Harlem--"a high crime area"; group actions and large-scale confrontations; juveniles;etc. [Here is a list of Jason members, that were also mentioned elsewhere in this paper.] Princeton University and Institute for Advanced Studies Freeman Dyson

...**Kenneth Watson (Professor of Physics, UC, Berkeley) Watson was one of the group that founded Jason in 1959. At first they were thinking of forming their own private consulting company, but they finally decided to let IDA be their business manager; This avoided the problem of profits (taxes). There is usually a 6-week summer study session and then a couple of long weekend meetings during the school year. Government people come and outline problems they would like Jason to solve. Most of the work is for the Defense Department. The purpose of Jason is to supply purely technical information for the government; it is non-political. Jason has never taken a position on any subject, as an organization. We are just a group of individuals... ..As to his personal attitude about the military, he said that since it is an \$80 billion budget he couldn't make a blanket statement.**

Heims, Steve J. (1980). *John von Neumann and Norbert Wiener.* MIT.

Pg. 180. "While the high technology with which each was concerned led directly to weapons development, it suggested incidentally to both men similarities in principle between machines and organisms, particularly parallels between high technology and **the human nervous system.**"

Pg. 275. "In May 1953 von Neumann assumed the chairmanship of the nuclear weapons panel of the Scientific Advisory Board of the US Air Force...In May 1954, von Neumann had occasion to make a list of all the organizations to which he was a consultant, twentyone in all, mostly government organizations but also some private companies. The latter included the Standard Oil Company, IBM Ramo-Wooldridge, the Rand Corporation.

Forman, Paul. (1987) *Behind Quantum Electronics: National security as basis for physical research in the United States, 1940-1960.* HSPS, 18:1.

Pg. 160. "Raytheon had particularly close ties to MIT: Vannevar Bush had been one of its founders..." Pg. 170. "During the 1950s the cumulative

number of announced and available number of papers properly published in U.S. physics journals-about 50,000- but it was probably only some small percentage of the (unknown) number of **security classified reports in physics** and its technical applications prepared in that decade.Pg. 173.

"As Marvin Kelly, President of Bell Labs, told the banqueting members of the American Physical Society early in 1957, "the ivory towered existence is no more...37" 37. "...Bell Telephone Laboratories were different only to the extent that 40% rather than 80% of their budget cam from DOD." Pg. 202. 87. "...Thus A. Abraham's massive Principles of Nuclear Magnetism(Oxford, 1961) is above all else, a treatise on quantum electronics." 88. "...at Bell Labs some 2000 scientists and engineers were engaged in war work;" 89. "...Similarly, "the tremendous advances in the fundamental investigation of paramagnetic materials...is in great part due to the existence of microwave equipment and techniques which were evolved during the war," Pg. 208. 103.

..."In June 1952 an Air Force spokesman implied that slightly more than half of the research sponsored by that service at universities and university-affiliated laboratories was classified, but that threefourths of that classified research was performed in six institutions where classified research was segregated in affiliated laboratories;... Pg. 214. "In September 1959...a symposium on "Quantum Electronics-Resonance Phenomena,"... ...The Office of Naval Research,...realized the growing significance of the field of quantum electronics, which is actually producing a revolution in microwave techniques." Pg. 222. "...asking why those tilling the most fundamental of all fields of physics accepted such a "utilitarian and pragmatic, but fragmentary, concept of science with the consequent abandoning of its traditional aim of the unification of knowledge." In answer Cini, pointing particularly to the **Institute of Defense Analysis' "Jason" group**, and stressing that inclusion in this consultative elite functioned as a mark of scientific eminence among U.S. theorists, suggested that this drastic shift in epistemic goals "was not a mechanical adaptation [to] an environment...but an active identification of its own interests-in the widest sense with the ...objectives...and the scale of values of the American society of those years by a leadership that came from within that environment."

Heims, Steven J.Cybernetics Group. MIT.

"Another group of physicists displayed their self-confidence after the war by invading the traditional domain of biology, proposing to unravel the code-script embodied in the genes as suggestion in Erwin Schrodinger's widely read book with the enticing title What is Life? (1944). A dedicated group of researchers who became known as the "phage group" formed around Max Delbruck and Salvador Luria and gathered in the summers at Cold Spring Harbor on Long Island: they were as narrowly goal-oriented as the designers of the atom bomb had been during the war. In this group young researchers obtained the training and orientation that eventually led to the discovery of the structure of the DNA molecule and creation of the new discipline of molecular biology." Editor's note. There are many articles which show that scientists and the military were very interested deciphering the brain.

Halacy, Daniel S. Jr.(1960) Bionics Science of Living Machines. Holiday House.

"...Among the organizations that assisted are the Department of Defense and its individual services, Cornell Aeronautical Laboratory, Inc.,

Massachusetts Institute of Technology, the Applied Physics Laboratory of Johns Hopkins University, Stanford Research Institute, General Electric Company, Lockheed-California Company... **Dr. W.R. Adey** of the University of California at Los Angeles. Speaking of another scientific symposium in 1960, he said:

"For collaborative engineering efforts to be fruitful, we would respectfully ask that the engineer first learn his biology." There were 30 speakers at the first Bionics Symposium, and about 700 in the audience representing engineers, physicists, mathematicians, psychologists, psychiatrists, biologists... They listened to papers typified by the following titles: ...Problems in Bio-Computer Design, What Good are Artificial Neurons?

Rose, Frank. (1984). Into the Heart of the Mind. Pg. 42.

"The Sloan Foundation is betting \$20 million that it can, and that should count for something. **The Sloan foundation is the less splashy of New York's two great automobiles philanthropies.** Unlike the Ford Foundation, it doesn't conduct its business in a plate-glass cube on East Forty-second Street. Its headquarters are in a very private office suite, thickly carpeted and painted a safe beige, high above Fifth Avenue in Rockefeller Center.

Nor is it in the habit of supporting causes that might be considered questionable or avant-garde. Throughout its fifty years of existence, Sloan has... Its interest in cognition began in 1970 with the decision to support the emerging discipline of neuroscience-the study of the brain. Seven years and \$15 million later, with neuroscience established as a respected academic endeavor, the officers of the foundation began looking around for something else to support. The neuroscientists suggested cognitive science. In 1976 the foundation announced that it was following their advice, and the race for funding was on. Editor's note. The Brain Research Institute. This is just one example of how the same top scientists may know of or have developed the technology for classified mind control related research under professional organizations with strong government connections.

The researchers include Dr. West (New York Times, CIA behavior control experiments, see CAHRA website, human rights abuse report, prisoners.), Dr. Brazier, Dr. Adey, Dr. Pribram, Dr. Lilly (government work), Dr. Sweet (mind manipulation for political purposes, according to Professor Alan Schefflin), Dr. Frey (microwave hearing, See CAHRA Timeline). The UCLA Office of Sponsored Research (at 310-825-4031) contract Specialist on 2-17-98 stated the policy on classified research at UCLA.

For the last ten years UCLA has not and does not conduct classified research.

Steneck, Nicholas H. (1984). The Microwave Debate. MIT Press. Pg. 86.

"So it was that the Air Force Systems Command, a primary recipient of most of the translated Soviet reports, contacted the head of the Brain Research Institute at the University of California, Los Angeles, for the purpose of calling a conference on **Neurological Responses to External Electromagnetic Stimuli.** The announced purpose of the UCLA meeting was to discuss scientific

explanations that might account for a number of reports of apparent central nervous system and behavioral effects being received by the air force." Pg. 84. "One year after the conference and Knauf's report, Soviet scientist traveled to the United States to attend the Fourth International Conference on Medical Electronics. The papers they presented plainly indicated that Soviet researchers, unlike their U.S. counterparts, were extremely interested in the consequences of **low-level, athermal effects, particularly on the central nervous system**. ...A.N. Obrosof, noted that **Soviet scientists had been studying personnel effects since 1942**. ...If there were important discoveries to be made, the United States could not be caught napping, as it had been with the launch of Sputnik in October 1957. ...

Translators working for the National Aeronautics and Space Administration, the air force, the army and Bell Labs in Whippany, New Jersey, began pouring through Soviet journals to find out just how much they knew about RF bioeffects. ...Lewis Bach ... "These reports have been going on for many, many years and I think we ought to ...on likely clues and likely lines and push them very hard to see if there is something or if there is not something..." ...Following the UCLA conference, the military, which controlled the RF bioeffects pursestrings and therefore made the major policy decisions, decided both to fish and cut bait.

Publicly talk of athermal effects was downplayed. Open contracts were not awarded for athermal or central nervous system studies, and in fact efforts were even made to keep information about central nervous system research from circulating too widely. Privately, however, the military and the State Department began work to try to determine whether there was any factual basis for a belief in the direct effect of RF radiation on human behavior and whether perhaps the Soviets had gotten the jump in exploiting such effects for espionage and military purposes."

Brain Research Institute, UCLA. Third Annual Report.

July 1, 1963 to June 30 1964. Pg. 35. "...Dr. Adey, with the association of Mr. Kado and Dr. Porter, developed a method of measuring impedance in brain tissue, providing an entirely new dimension in which to study the functional capacity of neural tissue.

Having been used extensively in animals, the method was used during the past year in assessing brain function of patients where, in general, comparable responses were obtained. P 61. Conferences. "Conference on Speech, Language and Communication. Sponsored jointly by the United States Air Force Office of Scientific Research ...1963." Participants included

...Lilly, John C. Communication Research Institute, Coconut Grove, Miami, Florida, Pribram, Karl H. Dept of Psychiatry, Stanford U., Sweet William H. Neurological Surgery, Adey, W. Ross.

Pg. 64. Air Force Conference on Neurological Responses to External Electromagnetic Energy ...1963. Participants included **Frey, Allen W. Institute for Research State College, Pennsylvania, Institute of Defense Analysis, Ad Hoc Committee for Secretary of Defense McNamara.**

Pg. 71 Consultants or Advisors to State, Federal or International Agencies. International Brain Research Organization Council (Brazier...) ..Weizmann Institute, Israel-**Medical Electronic and Biocomputing** (Estrin).

Wright, Stephen. (1994, Jan. 29). Weapons of Control. New Scientist. Pg. 55.

"...Way back in 1970, US congressman James Scheuer commented that: 'As a result of spinoffs from medical, military aerospace and industrial research, we are now in the process of developing devices and products capable of controlling violent mobs without injury. We can tranquilize, impede, immobilise, harass, shock, upset, stupefy, nauseate, chill, temporarily blind, deafen or just plain scare the wits out of anyone the police have a proper need to control and restrain.' The 1972 Security Planning Corporation report on nonlethal weapons to the National Science Foundation listed 34 different types using electrical, optical, acoustic, thermal, kinetic impact, chemical irritant and barrier devices to produce control effects. ...any of us might become future targets, since in reality these weapons will form part of the future's technology of political control.

Tigner, Brooks. (1996, April 7). Israel To Join EU in Tech Research. Defense News. Pg. 3. "Israeli companies are preparing to join a broad range of strategic high-technology research projects funded by the European Union (EU) following an unprecedented accord signed last week between Brussels and Tel Aviv. ...Scientific and research contacts between Israel and the European Union date back to 1975 and include work on nearly 100 joint research projects in material engineering, opto-electronics and **neurosciences**. Editor's note. This book is long so just skim to the area you are interested in! The purpose of this book is to show the interest in mind control, to show similarities to what the victims describe and the goals of military neurological researchers, to show the money invested in this technology and how classified it is. These are the main points.

The following articles are **examples of the search in the 1940s by scientists for the basis of human consciousness and for its control.**

Heims, Steven. (1991). Cybernetics Group. MIT

Preface. "The subject of this book is the series of multidisciplinary conferences, supported by the Macy Foundation and held between 1946 and 1953, to discuss a wide array of topics that eventually came to be called **cybernetics**." Pg. 11. ...included several mathematicians (Norbert Wiener, John von Neumann), engineers (Julian Bigelow, Claude Shannon), a neuropsychiatrist (Warren McCulloch), and a polymathic genius (Walter Pitts). Some members of this group had proposed that their concepts useful in engineering and biology, ... For lack of a better collective name we shall refer to this group as the cyberneticians, although they would never have used this term themselves. ...Fremont-Smith [Josiah Macy Foundation] was so cautious that I got the impression he was anxious to keep something private- ...Much later I learned of the CIA involvement, ... **(the Macy Foundation's records have not been open for researchers)**. At the Macy meetings, as the unedited transcript shows, the political conditions were discussed explicitly from time to time.

Some participants were government consultants who worked on "classified" topics kept secret from other researchers; their priorities were such that they skipped attendance at the conferences whenever the government called. McCulloch described the situation at the beginning of the ninth meeting in 1952: I would like to say that two things have interfered with our gathering this time. One of those is an increasing source of anxiety to me

...Thing after thing that one or another person has wanted to

discuss at this meeting has been locked up for "secret."

I have no idea how far that process will go in time to come.

I know that von Neumann had something he wanted to talk to us about and that it is secret. I know that some stuff that Bavelas wanted to talk about to us has become secret. And so it goes. Pg. 251.

"I looked up Bateson in Sea Life Park in 1968. I had written to him in connection with my interest in the history of the Macy cybernetics meetings. His response was,

"There is certainly a piece of scientific history to be dug out of these meetings-I believe more profound and dramatic than The Double Helix."

Pg. 256. "John Stroud, who also used cybernetics to give form to his personal metaphysics and synthesis, was a lively, active participant at the Macy meetings. Everyone at the conferences agreed he was a bright and talented young scientist, but a quarter-century after the meetings several participants asked me, "Whatever became of John Stroud?" ...

He is something of a mystery figure. A McCulloch protege, ...He spent most of the rest of his working life as a civilian employee of **the U.S. Navy, his work hidden from the scientific community by the veil of military secrecy.**

McCorduck, Pamela.(1979).Machines who Think.P.46

"In 1942, at a meeting sponsored by the Josiah Macy Foundations in New York, Arturo Rosenblueth presented the ideas that would appear the following year in the Philosophy of Science paper. In the audience was Dr. Warren McCulloch of the University of Illinois Medical School, who had long been interested in the organization of the cortex of the brain. McCulloch, a neurophysiologist, had already begun working with Walter Pitts, a mathematician, on a mathematical description of certain neural behavior. In 1943, the same year that the Rosenblueth-Wiener-Bigelow paper would appear. McCulloch and Pitts would publish

"A Logical Calculus of the Ideas Immanent in Nervous Activity" in Bulletin of Mathematical Biophysics....the paper goes on to describe a logical calculus and principles for constructing a class of computing machines that would permit the embodiment of any theory of mind or behavior ...their publication could well be taken as the birth of explicit cybernetics."

Editor's note. Here is just one of numerous similar articles.

"A Method for the Remote control of Electrical Stimulation of the Nervous System-E. Leon Chaffe, Professor of Physics, Harvard University, and Richard U. Light, Instructor in Surgery, Yale University School of Medicine. Yale Journal of Biology and Medicine Volume 7, Number 2 December 1934.

Editors note. I.I. Rabi may have consulted with the government to decode the brain. It is one of the many research leads to follow. I.Rabi worked for the MIT Radiation Lab to develop radar for World War II along with a who's who of physicists, Hans Bethe, Luis Alvarez, Ed McMillan, to name a few. Radar is a device that can detect invisible or distant objects by means of reflected radio waves and is capable of locating them accurately in space. He is known as the discoverer of Nuclear Magnetic Resonance in Molecular Beams."Isidor Isaac Rabi(The scientist in public affairs) has been Associate Director of the Radiation Laboratory of the Massachusetts Institute of Technology, and Chairman of the general advisory committee to the Atomic Energy Commission. He has been Higgins Professor of Physics at Columbia University since 1950, and is a member of the President's Science Advisory Committee.

He was **awarded the Nobel Prize for Physics in 1944."**

Calder, Nigel, editor. 1968. *Unless Peace Comes*, Scientific Forecast of new Weapons. Viking Press.

Ramsey, Norman. (1956) *Molecular Beams*. Oxford at the Clarendon Press.

"The molecular beam magnetic resonance was first introduced by **Rabi** and his associates (RAB 38 KEL 39) in 1938. ...Precision measurements of nuclear, molecular, and atomic properties began in 1938 with the introduction of the molecular-beam resonance method by Rabi and his associates (RAB 38, KEL 39). At first, the resonance method was applied to the measurement of nuclear magnetic moments only, but it was soon extended as a more general technique of radiofrequency spectroscopy initially by Kellogg, **Rabi**, Ramsey, and Zacharias (KEL 39a) in applications to molecules ...

Bar-Ilan University Press. (1996). *Pioneers of NMR and Magnetic Resonance in Medicine: the Story of MRI*. Pg. 567-8

Richard R. Ernst. Pioneer of Fourier-Transform NMR and Two-Dimensional NMR Spectroscopy and Imaging. "...improving the sensitivity of the technique tenfold or even hundredfold... ..Fourier transformation and pulse techniques, what is that? Let me try to illustrate it through an analogy. Remember first that spectroscopy is very much concerned with the detection of signals from a sample containing some compound. Assume that you are interested in finding out how well tuned a piano is. ...The traditional, "old-fashioned" way of doing this would of course be to hit each key in succession and record the frequencies-the signals from our sample if you wish. ...Now there is a much faster way of getting the same results: ...hit all keys at once. You have now performed a pulse experiment. ...But how could you possibly extract the individual tones from the cacophony? ...Fourier transformation. ...Savings in time can be used in another way, to increase sensitivity. To continue our analogy, ..."signals" from the [piano]strings barely audible about the background noise in the room. Now you could improve the detection of these weak signals by hitting the keys of this same piano 100 times every sixth second and adding the result. This would improve the signal-to-noise ratio tenfold... ..When Fourier transform NMR was introduced around 1970 it had a tremendous impact on the applicability of NMR technique to chemistry.

Cannon, Martin (1980?). *The Controllers*. Internet.

"...In his autobiography *The Scientist*, **John C. Lilly**....records a conversation he had with the director of the National Institute of Mental Health--in 1953. The director asked Lilly to brief the CIA, FBI, **NSA**, and the various military intelligence services on his work using electrodes to stimulate directly the pleasure and pain centers of the brain. Lilly refused, noting, in his reply: **Dr. Antoine Remond**, using our techniques in Paris, has demonstrated that **this method of stimulation of the brain can be applied to the human without the help of the neurosurgeon**; he is doing it in his office in Paris without neurosurgical supervision. This means that anybody with the proper apparatus **can carry this out on a person covertly, with no external signs that electrodes have been used on that person**. I feel that if this techniques got into the hands of a secret agency, they would have total control over a human being and be able to change his beliefs extremely quickly, leaving little evidence of what they had done."

Editors note. **Dr. Antoine Remond, Centre National de la Recherche**

Scientifique, Paris(France) is on the Handbook Editorial Committee of the International Federation of Societies for EEG and Clinical Neurophysiology, 1978. **J Lilly, K Pribram** Dr. Adey and many other top scientists attended Brain and Behavior Conference in 1961 and many other similar conferences. **There are many research leads to follow.** A.S. Gevins, co-editor with Dr. Remond conducts eeg research funded by "Office of Naval Research, the Air Force Office of Scientific research..." The following articles demonstrate the active search to solve the mysteries of the brain and to develop this knowledge, continuing up to the present time.

Pribram Karl H. (1996)?.*Rethinking Neural Networks Quantum Fields and Biological Data.* Pg. 156-7.

"B. Multiple Personality "Personality" is a consistent pattern of responses to stimuli and situations. In QND, the personality of the stochastic filter is determined by the locally homotopic mappings of experience onto the neural domain and by the configuration of discontinuities between homotopic domains.

A conscious train of thought consists of a well-formed wave packet propagating within the neural domain in response to the combination of inputs from a number of sources, including the sensory apparatus and the outputs of other domains at various levels of abstraction.

When the probability density corresponding to this wave packet produces an expectation that does not compare well with the actual ensemble of inputs, the result is a potential field gradient (or "barrier", if it is sufficiently steep) that deflects the wave packet toward states associated with less prediction error. Suppose that when the network's personality is being formed, it experiences a deliberately consistent "diabolical" training in which certain common experiences are interrupted with frustrating or painful intervention. QND learning will encode the painful experience on the trajectory so that it will be properly predicted as a consequence of the prior experience. (Incidentally, QND learning models classical conditioning even though it is simple Hebbian, because of the causal dynamics of the Schroedinger equation.) whenever the common experience subsequently occurs without the intervention of the diabolical agent, the extreme difference between the expected punishment and the benign experience drives the conscious wave packet away from the states where the pain was stored. This "avoidance" has two consequences, one obvious and the other subtle. The obvious effect is that the deflected wave packet will generate an **altered behavior pattern**. The subtle effect is that the neurons where the painful patterns are encoded will be prevented from receiving enough probability to allow the patterns to be corrected. Now suppose that the diabolical training is "extensive", both figuratively and literally. that is, suppose that it succeeds in placing other **avoidance patterns** into a geometry that surrounds and isolates a large cognitive domain from the rest of the neural network. Subsequently, wavepackets that form in that domain will be trapped there, and that domain will then develop a personality that is distinct from the personality of the exterior domains(s). But the entrapment is not permanent:

Quantum tunneling provides a mechanism for penetration of the barrier, after which another distinct personality emerges."

Editor's note. Dr. Pribram is a Stanford University Professor, a very credible professional. The above excerpt was a quantum level description of multiple personality. (See Operation Mind Control by Walter Bowart, 1978 and 1995, Flatland Publishing for military involvement in this area of research). **This is very significant proof that the brain code has been discovered.**

Baker, CB. *ELF Biological Warfare Upon America*. Youth Action News. PO box 312 Alexandria, Virginia 22313.

"...neurophysiologist Karl Pribram has spent most of his career documenting the holographic model of the human brain. ...holography is a method of lensless photography in which the wave field of light scattered by an object is recorded on a plate as an interference pattern. when the photographic record --the hologram --is placed in a coherent light beam like a laser, the original wave pattern is regenerated. A three-dimensional image appears. ...Any piece of the hologram will reconstruct the entire image." Ken Wilbur[wrote Holographic Paradigm, 1982] described the work of the great quantum physicist David Bohm who "says that the hologram is a starting point for a new description of reality: the enfolded order. ...Also electron beams could do the same thing or sound waves could make holograms, any form of movement could constitute a hologram... .."

Marilyn Ferguson[wrote Brain Revolution1970?]

who stated: "the holographic supertheory says that our brains mathematically construct 'hard' reality by interpreting frequencies from a dimension transcending time and space. The brain is a hologram. Michael Talbot [wrote The Holographic Universe, 1991] "Any wavelike phenomena can create an interference pattern, including light and radio waves... ..described the work of an eighteenth century Frenchman named Jean B.J..

Fourier who "developed a mathematical way of converting any pattern, no matter how complex, into a language of simple waves. He also showed how these wave forms could be converted back into the original pattern."

...could be achieved mathematically,...Fourier transforms...These enable the Nobel Prize winner Dennis Gabor (in 1947) to convert a picture of an object into a blur of interference patterns on a piece of holographic film. ...

In 1979, Berkeley neurophysiologists Russell and Karen DaValois discovered that the human brain utilizes Fourier mathematics--"the same mathematics holography employed--to convert visual images into the Fourier language of wave forms."

Other scientists "discovered that the brain's visual cortex was responding not to patterns, but to the frequencies of various wave forms." Another group of scientists had discovered that "the human ear was a frequency analyzer" and that our "our skin was sensitive to frequencies of vibrations."

Adey W. Ross, Proctor, Lorne, Technical Editors.(1964, Oct29-30).

Symposium the Analysis of Central Nervous System and Cardiovascular Data Using Computer Methods. Washington, D.C.NASA

Contents... Visually-Evoked Potentials Recorded Transcranially in Man. ...Antoine Remond. ...Concepts of Cerebral Organization Arising from Time Series Analysis of Neurophysiological Data...W. Ross Adey. ...Frank Ervin." Editor's note. And yet another lead to follow, Alan Gevins, electroencephalography, President SAM Technology, Inc. San Francisco, CA. Gevin is listed as a Contributor to the 1996 USAF SAB which contains the drastic predictions of electromagnetic weapons on humans(see CAHRA website, Intelligence Tools). He also authored the article Obstacles to Progress in 1987 EEG Handbook Volume 1 p 668 and makes a telling comment. "

...Another line of advanced research which may temper the strict epiphenomenalist view suggests that **low-intensity, low frequency electromagnetic fields have the capability of influencing the metabolic activity of individual neurons (see review in Adey 1981). If so, such fields could play a significant role in mass neural information processing.**

Lawrence Albert & Adey W.Ross.(1982)Nonlinear Wave Mechanisms in Interactions between Excitable Tissue and Electromagnetic Fields.Neurological research, Vol. 4 Number 1/2 p 115.

"It is now well established that intrinsic electromagnetic fields play a key role in a broad range of tissue functions, including embryonic morphogenesis, wound healing, and information transmission in the nervous system.

These same processes may be profoundly influenced by electromagnetic fields induced by an external force.

Tissue exposure to extremely low frequency(ELF) and ELF-modulated microwave fields at levels below those inducing significant thermal effects has revealed highly nonlinear mechanisms as a basis for observed effects.

...A model is proposed for interaction between excitable tissue and electromagnetic fields, based on nonlinear waves in the cell membrane, with ionic interactions as an essential step."

Mackay, Donald.(1980).Brains, machines and Persons.

"One of the most powerful computational techniques for extracting significant information from brain signals is called 'cross-correlation'. To take a simple example from the work of one of my former colleagues, Dr. D.M.Regan, a flickering light in front of a patient's eyes elicits a weak flickering electrical response from the brain. Often this is less than one millionth of a volt in strength, as recorded from the scalp, and so is normally swamped by the background of general brain activity (typically 10 to 50 millionths of a volt in strength). Dr. Regan devised a simple analogue computer system to multiply together the signal controlling the flickering of the light and the mixture of signals from the brain. Cross-multiplying, followed by averaging, has the effect of steadily enhancing any brain signals that are in step with the flickering input, and averaging out those that are not. As a result, even the feeble responses to flickering light from a nervous system damaged by multiple sclerosis can be easily measured.

Jastrow, Robert.(1981).Enchanted Loom.Simon & Schuster.

"...This research has barely started, but the pace of the progress is astonishing. In one recent experiment, scientists at attached electrodes to

the rear of a subjects skull, just above the brain's center of vision. They discovered that this region emitted different electrical patterns, depending on what the subject was looking at. Circles, squares or straight lines-each had its special pattern of electrical waves. In another experiment, scientists detected a special signal that seemed to signify excitement or elation, coming from the seat of feelings and emotions in the brain. Looking at these electrical records, the scientist can tell something about the thoughts and feelings in a person's mind, and the impressions that are passing into his memory.

Rose, Frank. (1984). Into the Heart of the Mind. P.189.

"...in which NASA cosmologist **Robert Jastrow** foresees the day when brain scientists will be able to dump contents of the mind directly into the circuitry of an electronic computer. Macay, Donald M. A Mind's Eye View of the Brain. Cybernetics of the Nervous System. Volume 17. Elsevier.

"...Few scientists have been more successful than Norbert Wiener...

...The timehonoured problem of relating mind and brain has recently received a new twist with the evolution of artifacts capable of mind-like behavior. ...

"I am greatly indebted to the RAND Corporation for assistance in transcribing the talk, given in their Santa Monica Laboratories,... Wiener, Norbert. (1965). Cybernetics of the Nervous System. Schade Elsevier. "...The big new principles in the field of physics were slowly being contemplated. Men like Wiener searched for basic concepts, like the random distribution of matter, **and relation of matter and electromagnetic radiation**, the quantum state of energy in matter, relativity, etc. ...In this early period of Wiener, culmination with his production of the book **The Fourier Integral and Certain of its Applications in 1933,...** ... Another consideration of Wiener at this time was the phenomenon of **harmonic analysis of particles**. This is related to the study of Brownian motion, and is the natural outgrowth from quantum mechanics' representations of matter in the form of wave functions. With harmonic analysis this clearly is Wiener's earliest work into 'rhythmic systems.' This would later come to dominate all his work, and he stressed the importance for **neurophysiology**. ...a statement by the Russian neurophysiologist A.V. Napalkov. "We believe that new research methods, engendered by the development of cybernetics lead to a radical change in the methods which so far have been used in the study of the brain. ...In Wiener's belief the property of brain waves is one of **highly specific microradiation**. ...Dr. Wiener find that his ideas about specific types of radiation associated with nucleic acid complexes randomly scattered within neurons, when applied to encephalography should bring about productive results. "Encephalography has been too much in recognizing wave patterns subjectively. Too little has been done for determining what actually happens there....We have not done enough work making **atlases of frequency distributions**...This method is looking for specific numbers."

Wiener, Norbert. Rhythms in Physiology with Particular Reference to Encephalography.

"...I am not a physician, I am a mathematician. ...In this lecture I have intended merely to give you a general idea of what my concepts are concerning brain waves. Research work in this line is under way at several

places; it is going on in the laboratory of Dr. Lindsley and Dr. Gray Walter, and I hear that an interest in this field is developing in Germany and Russia. Editors note. Top scientist such as **Wiener and Dr. Mary Brazier of the UCLA Brain Research Institute** and many others, worked or collaborated together and with the same government and private funding. This is where to look for mind control research. The following article states one problem in deciphering brain signals. But current technology could overcome this obstacle.

McCulloch, Warren S. (1965). *Embodiments of Mind.* M.T.T. Press.

P v. "There are two kinds of goals directing the current arts of artificial intelligence(AI), parallel distributed processing(PDP), and the hard-wired nets that process images or sounds. The first are products that are useful to industry and the military. This pays for the research. ...**Signal-to-noise relations limit considerably the observations that can be made on a living system.** ...When Warren, Walter, Pat Wall, and I came to MIT, it was with the aim of marrying **physiological data to advanced speculation on how a nervous system works.** ...Wiener's letter at the end of three weeks was a lively diatribe on **noisy nonlinear systems** that were clearly designed to frustrate right-thinking analysts. ...McCulloch and Pitts ...1943 paper which provides for the first time a set of mathematical instruments sufficiently powerful for the conceptual description... and the investigation of the frog's visual system that culminated in the brilliant experiments... [McCulloch] still held that in the end there would be an **algorithmic description of the processes that engendered what "perceptual" operations** we found. ..The **retina is a machine**... logical gates but **more complex analog processors.**" Pg.3. "

...in 1952, I went to the Research Laboratory of Electronics of the Massachusetts Institute of Technology to work on the circuit theory of brains."Pg. 230. J.Y. Lettvin, H.R. Maturana, W.S. McCulloch, and W.H. Pitts. (1959). What the Frog's Eye Tells the Frog's Brain.IRE.

"This work was supported in part by the ..USAF Office of Sci. Res, **...US Navy(Office of Naval Res.)**; and in part by Bell Telephone Labs, Inc. Editor's note. This is a very important and interesting paper.

Pg. 216. "McCulloch, Warren S. M.D. Since 1952 Dr. Warren S. McCulloch has been a staff member engaged in the Research Laboratory of Electronics at the Massachusetts Institute of Technology. ..is also well known as one of the founders of the group who have developed Cybernetics. He was Chairman of the Macy Conference on Cybernetics during its life from 1946 to 1951... ...But Gentleman the title of my paper is not facetious.

At the behest of the Mathematical Sciences Division of the Office of Naval Research(ONR), I spent two months abroad, questioning "Where is fancy bred?" ...Dr. Sem Jacobsen spoke well, but gingerly, about implanted electrodes;...hostility ..in the press and lost him financial support for implanted electrodes...has made trouble for Dr. Sherwood[in England] But France is a Catholic country. ..facilitated the work in New Orleans and at Rochester. Percival Bailey, who was one of the first to implant electrodes keeps his copy of the Pope's letter in his desk. In Boston Jim White and **Bill Sweet** have just been blessed, not merely for implanted electrodes, but...So much for implanted electrodes.

They are here to stay. Through them we will record activities in structures heretofore inaccessible, locating the womb of Fancy. ...But let us get back to Salpetriere, where there were many good anatomic and psychologic papers. But the work of **Antoine Remond was the crowning success of the meeting. Long years ago he had come to my laboratory in Chicago...** combined with accumulators that let him use hundreds of repeated stimulations and so raise the signals way above the noise.

The resulting maps of the first special derivative on the surface of the head are impressive. To go from these to the second derivative, which locates the nervous activity as well as possible, is still done by a laborious longhand computation. ...Today it can be done electronically, ..It may take three years to build the gadgets. Remond's work was so impressive that the National Institutes of Health and the European Office, Air Research and Development Command, are now backing it financially, but I understand that Bugnard and Alajouanine are of the opinion that it will raise the envy of those who have done nothing new. ...**John Lilly** failed to show, and I , as his fellow-American, was commanded to speak on a mathematics suited to neurology. ...Between visits to laboratories and lectures to theoretical physicists, engineers, psychiatrists, and physiologist, I found time to work with **Sherwood on the third component of the Laplacian of the cerebral cortex.** ...But my principal business in England was the study of artificial intelligence. ...When I reached the National Physical Laboratory for Uttley's symposium on **"The Mechanization of Thought Processes,"** ...But what I saw in Russian faces was that their scientists, like ours, know they are confronted by the problem of the Rabbi of Chelm with his Golem,...**The vigil must be endured, even if it entail "Q" clearance.**{Q is a national security clearance.} ...On the landing here, I made my bow to ONR and began to contact my Human Factors friends in Astronautics.

They could use these circuits. ..Let me recapitulate its discoveries. 1. **For the good of patients, implanted electrodes are here to stay; and through them, whether psychiatrists like it or not, we will learn where fancy is bred."**

Jeffress, Lloyd A. (1961), Facsimile of the 1951 Edition). *Cerebral Mechanisms In Behavior.* The Hixon Symposium.Hafner Publishing Co.

"Members of the Hixon Symposium...Warren S. McCulloch, John von Neuman, Linus Pauling...the Hixon Fund was established in 1938 by a grant to the California Institute of Technology ...to support scientific endeavor which offers promise of increased understanding of human behavior.

Editor's note. This article demonstrates the continuing research for figuring out the process of sight, the same line of research based on the same theory, over twenty years later.

Marsh, Alton K. (1979, Jan.29) .Special Report: *US Air Force; Research and Development: Changing Patterns USAF Studies Arming Weapons Vocally.* Aviation Week. Pg. 239.

"...If you could pull off the brain waves through sensors in a helmet," laboratory commander Col. Roy L. DeHart said, "just the thought wave could be used to activate various devices on the airplane by the turn of the century. I'm implying the pilot could call up switching, or select things[such as head-up displays] through thinking about it".

...Fundamental visual process research, headed by Capt. Arthur P.Ginsburg and Mark W. Cannon, is aimed at providing a mathematical description of man's visual capabilities.

Editor's note. For many reasons, most scientists have not protested scientific research for military purposes. Here are a few who did.

Gray, Chris Hables. (1997). Postmodern War. Guilford Press.

Pg. 234-5 "...Norbert Wiener, ...did substantial war work at MIT, but by the end of 1946 he said..."I do not expect to publish any future work of mine which may do damage in the hands of irresponsible militarists". Pg. 237.

"Or Prof. Joseph Weizenbaum of MIT, who has called on computer scientists not to do vision research since it is framed by military priorities."

Editor's note. People do make a difference. Here is another example from Gray. Pg.255- 6. "...a woman named Katya went into the Vandenberg Air Force Base and smashed some computers for the Navstar system, part of World War IV command-and-control network set up by the Pentagon with secret Black Budget funds. The economy of punishments paid her back with three years in a cage to try and forge the link in all our heads: protest=prison.

She has moved to subvert such an equation by earning early release and then graduating from Harvard Law School."

Chapter Seven

Sensors technology has been highly classified and billions of tax dollars were spent for its development during the Vietnam War. The U.S. military and corporations then sold this technology to Europe. Many parallels to mind control technology can be drawn. The importance and funding of bionics, replacing man with electronic eyes and ears, to the military can be seen in the following examples. Sensors development is like the development of the atomic bomb. It is a science-corporation-military-government bureaucracy which has national security classification, no accountability, massive funding and military goals to develop lethal technology. This cold war bureaucracy rationalized government radiation experiments in order to defeat the diabolical communist enemy. Sensors technology has been found guilty of the similar crimes. Now mind control victims are alleging the same problems. This is how the unthinkable can happen, how something horrible like radiation experiments and now mind control experiments happen.

Sensors technology is a part of the revolutionary change in military thinking. Technology has and is changing the nature of war.

The use of sensors and the electronic battlefield in Vietnam was a turning point for waging wars. Many analogies to mind control technology development can be drawn from this example. It is clear that the political will at that time and today, favors the military-corporation goals. It becomes clear that mind control experimentation could take place and with the approval of top officials. The role of secrecy, the interest of the military to develop high

technology and the serious implications of a lack of oversight are all contributing factors to the **proliferation** of sensors and now mind control technology. Barnaby, Frank.(1984). Future War Armed Conflict in the Next Decade.Facts on File Publications.

Pg. 72 "...On the battlefield of the future, enemy forces will be located, tracked and targeted almost instantaneously through the use of data links, computer assisted intelligence evaluation, and automated fire control. With first round kill probabilities approaching certainty, and **with surveillance devices** that can continually track the enemy, the need for large forces to fix the opposition physically will be less important.

I see battlefields on which we can destroy anything we locate through instant communications and ..."

This version of the automated battlefield was described as long ago as 1969 by General W.C. Westmoreland, then Chief of Staff, US Army. The General based his statements on his experiences of new war technologies in the Vietnam war. Like most wars in the Third World, the Vietnam war was used enthusiastically by military scientists to test their new inventions under operational conditions."

Pg. 74. "**Sensors.** A sensor is a device used to detect the presence of matter or energy and locate it. The sensors on the automated battlefield may be sensitive among other things to light, sound, magnetic fields, pressure and infra-red radiation. They can transmit information about enemy forces by radio over long distances."

Barnaby, Frank & Huisken, Ronald.(1975).Arms Uncontrolled. SIPRI.

Pg. 60. The Automated Battlefield. ...The sensors on the automated battlefield can be sensitive either to the same physical stimuli as the human senses, for example light or sound, although usually with greater sensitivity, or to physical stimuli which is not directly detectable by a human being, such as infrared radiation, magnetic fields, electromagnetic waves, and so on." Editor's note; For more information, see World Armaments and Disarmament SIPRI Yearbook 1974. Chap. 11. Here is a list of some sensors **available in 1975. Acoustic seismic, radiofrequency, magnetic, chemical radar and infrared.**

Homing devices(infrared seeking and radar-seeking, laser guided and television cameras were also available at this time.

The above book also quoted General W.C. Westmoreland..."Currently we have hundreds of surveillance, target acquisition, night observation and information processing systems either in being, in development or in engineering. These range from field computers to advanced airborne sensors and new night vision devices...

SIPRI goes on to say "...The fully automated battlefield as envisaged by General Westmoreland...should probably not be anticipated, at least on such a scale, for some time to come.

"The main concern in the recent public debate has been focused on the possibility that indiscriminate use of weapons might follow from the introduction of automated battlefield systems."

U.S. Senate, Electronic Battlefield Subcommittee of the Preparedness Investigating Subcommittee of the Committee on Armed Services, Wed. Nov. 18,

1970 Pg. 1-5. Senator Cannon. "...I want to make it very clear at the outset that the electronic battlefield program is not a clearly definable program as such. This term is used as the most readily available phrase to describe the many and varied types of equipment whose mission is to detect and locate enemy troops. ...Essentially, the key area of interest that gave rise to this inquiry was the development and use of sensor surveillance equipment which constitutes a new technique and innovation in locating enemy forces in South Vietnam.

Former Secretary of Defense McNamara made the decision in 1966 to place in operation a military concept known as the McNamara Wall.

Although this concept was never fully implemented, it did lead to the development and production of many types of sensor devices. These sensor devices were placed in operation in Vietnam on a very high priority basis. ...I do want to make one thing very clear to all the witnesses who will appear before this subcommittee. **...we do not want nor will we entertain any testimony that would jeopardize the safety and security of our forces or operations in Vietnam...we will receive this testimony later in executive[~~closed, classified~~]session. ...**

General Deane. ...

"I personally think it has the possibility of being one of the greatest steps forward in warfare since gunpowder. ... There has been a lot of misinformation about this program on the floor of the Senate because we have not been able to release information that has been properly very highly classified.

Statement of Maj. Gen. John R. Deane, JR, USA Director, Defense Communications Planning Group[DCPG]. "

...I welcome the opportunity to report to you regarding the activities of DCPG. I shall briefly cover the history of DCPG; the sensoraided combat surveillance systems... DCPG Established. In August of 1966, a scientific group known as the **JASON Committee proposed** to the Secretary of Defense a concept for inhibiting enemy troop and supply infiltration into South Vietnam by means of an air-supported barrier system, supplemented, of necessity, by a conventional barrier system. These systems basically called for the use of electronic sensors to detect enemy personnel and vehicles... Editor's note. Please see article under section six for more information on the Jason group.

SESPA (1972). *Science Against The People.* The Story of Jason. Pg. 18.

"...Extracurricular Activities. A number of Jason scientists also involve themselves in the interaction of science with politics through non-governmental organizations. Drell, Goldberger, Glaser and Townes are all leading figures in the **Federation of American Scientists (FAS)**, a 26-year old group of liberal, establishment scientists which tries to influence government policies on weapons development through Congressional lobbying. In a recent mailing, FAS Chairman Goldberger[a Jason member] asks scientists to "join with us in asking the Administration for a full accounting of past and present Executive Branch actions" concerning work on weather-modification in Vietnam and elsewhere. ...SESPA would ask FAS whether they also judge American pioneering in the use of the automated battlefield to be an intolerable misuse of science, and whether

the many former (and current) Jason and PSAC people in the FAS should be expected to cooperate in a "full disclosure" of these and other weapons they have studied for the military.

SESPA (1971, Jul).

Pg. 28 "*Electronic Battlefield*, Inc. by Chris Robinson ...article describing the Pentagon's development of the electronic battlefield. Utilizing sensors systems...

Companies involved include RCA, Westinghouse, Hughes, Honeywell, General Electric, Litton, Motorola, and ITT."

SESPA (1973, Jan.).

"Humint" (human intelligence) seeks to detect people by amplifying their heartbeats and eyeball reflections."

Dickson, Paul. (1976). *The Electronic Battlefield*. Indiana University Press.

Pg. 37. "Anyone collecting bizarre weapons, weapons concept, and associated equipment will find the Vietnam era to be an especially fertile time for such things." Pg. 41. "People sniffers-these pieces of equipment, which are more properly designated Aircraft Mounted Concealed Personnel Detector, were built to pick up ammonia in human sweat and urine as well as engine exhaust. ...proved invaluable in detecting the unseen enemy.

Pg. 42. **"Ground target radars-....an important class of item in the overall collection were small ground target radars that were not too different from the older and larger models that saw service in Korea."**

Pg. 72. "And if the Westmoreland speech served to give the electronic battlefield formal expression as a new military dream, the three-day, officially secret National Security Industrial Association (NSIA) symposium on the same concept showed it was becoming a contractor's dream as well. Some 850 industry representatives with secret clearances were seated for the meeting at **the National Bureau of Standards in Gaithersburg, Maryland.** Meanwhile an additional 1,450 were turned away due to the lack of space."

Pg. 102. "Finally on July 6, 1970, Congressional inattention was interrupted when Senator William Proxmire said, "Mr. President, I rise today to point out a classic example of the Pentagon's 'foot in the door technique,' one of the main reasons why the military budget is out of control. I am informed that **the Pentagon has already spent some \$2 billion on a secret weapons system called the electronic battlefield...**" Congressional control-...information on this program had been kept from Congress and its costs hidden within the Defense Department budget request.

Pg. 116. "...the program attracting more than the **\$3.25 billion** in appropriations uncovered by the Subcommittee...Proxmire and the Subcommittee agreed, however, **that the electronic or automated battlefield represented a whole series of technologies and programs that were combining to form a totally new American way of war**, and that the investigation had only touched on one part of the whole. In other words it was a classic tip of the iceberg situation that seem to be begging for deeper examination...

Pg. 118. "While the misplaced millions paved the way for DCPG's dismantling, its actual demise was ordered by Congress when it began moving into new realms. ...Deputy Defense Secretary David Packard ordered the group to

expand its activities from Southeast Asia,... **to the rest of the world, especially Europe.** Neither Packard's order nor an April change in the name of the group to Defense Special Projects Group (DSPG) were reported to Congress.

Pg. 122. "Having had great impact on the technology of jungle war in general and on the Southeast Asian War in particular, DCPG was given one more major job before going out of business. Under the specific orders of Secretary of Defense Melvin Laird, DCPG began work on a project with the code name Mystic Mission at the beginning of 1971. the goal of Mystic Mission was to get the sensors and related equipment into improved, streamline shape for their European debut. ...\$17 million bill for the Mystic Mission preparations..."

Pg. 130. "Formed in 1963, the Crows act as a booster group for electronic warfare (EW), which is that rich collection of esoteric equipment used to electronically detect, mislead, and evade enemy weapons efforts. They enjoy an almost legendary reputation in military circles for what they and their network of chapters have **accomplished in creating a strong and burgeoning market for EW hardware.** Like the Crows, the nascent Cricket Society[formed in 1974 to promote sensor technology] is open to people from government and industry and will have chapters dotted across the country.

Pg. 169. "He added that if I was hoping to write about **"the automated battlefield in the large sense of the word"** than I would hit a lot of dead ends marked secret, and that I would be lucky if I got a hint of what was going on. ...the electronic battlefield has already dwarfed most other huge Federal efforts and should soon be in the price class of the Apollo Program for space exploration. ...This is a **"revolution in conventional warfare"** talked about by Pentagon planners that will usher in abilities that existed only in science fiction magazines a few years ago.

Pg. 174. "There are others, but none is more intriguing than the **"death ray"** application first put to use by the likes of Flash Gordon and Buck Rogers in their scrapes with the forces of evil. Although few effort are so heavily wrapped in secrecy, enough is known to conclude that **"high energy lasers loom very large in the military scheme of things.**

Pg. 206. "The only major, sustained effort to educate the public about the **electronic battlefield has been by NARMIC**[National Action Research on the Military Industrial Complex, a branch of the American Friends Service Committee based in Philadelphia.] Its major effort at public education in this matter began in 1972 with the production and distribution of some 1,300 copies of a filmstrip and script entitled "The Automated Air War," which concentrated mainly on Igloo White. It was widely shown in the United States, Canada, and Europe. The NARMIC expose is a welldocumented, strong condemnation of the electronic battlefield innovations used in Southeast Asia."

Pg. 208. "The "Winter Soldier" hearings staged in 1972. ...Eric Herter, grandson of the former Secretary of State Christian Herter which said in part: We have been participants in the new forms of war that are to replace the unpopular struggle of infantry and patrol against guerrilla bands. Replace it with a greater atrocity than a hundred My Lais: the systematic destruction of thousands of innocent persons, of entire cultures by an automated electronic and mechanical death machine whose killing will be one-sided, unseen and universal..."

Pg. 212. "The plans are drawn, the multibillion-dollar down payment has been made, parts of it have already been tested in real war, and the rest of

the wiring is going in right now."

Chapter Eight

This chapter is about targeting whole populations with electromagnetic mind control. Distinguished government officials state unequivocally that it can be developed and there have been many rumors over the years reported in major newspapers. The goal of controlling man for political purposes continues. Scientists at the top of their field such as Dr. Wiener, of MIT and Dr. W. Ross Adey of NASA & UCLA are cited in articles concerning mind control. Here are a few of the many examples.

Calder, Nigel. 1965. The World in 1984 Vol 1 & 2. Penguin Books.

Notes on Contributors. "Nigel Calder has been editor of New Scientist since 1962. Educated at Cambridge he worked for two years as a physicist for Mullard Research Laboratories before joining the staff of New Scientist at its inception in 1956."

p. 181. How to Wreck the Environment by Gordon J.F. MacDonald, United States.

"Professor MacDonald is associate director of the Institute of Geophysics and Planetary Physics and Planetary Physics at the University of California, Los Angeles. ...He is a member of President Johnson's Science Advisory Committee." "Brain Waves around the World? ...The enhanced low-frequency electrical oscillations in the earth-ionosphere cavity relate to possible weapons systems through a little-understood aspect of brain physiology.

Electrical activity in the brain is concentrated at certain frequencies, some of it extremely slow, a little around five cycles per second, and very conspicuous activity (the so-called alpha rhythm) around ten cycles per second. Some experiments have been done in the use of a flickering light to pull the brain's alpha rhythm into unnatural synchrony with it; the visual stimulation leads to electrical stimulation. There has also been work on direct electrical driving of the brain.

In experiments discussed by Norbert Wiener, a sheet of tin is suspended from the ceiling and connected to a generator working at ten cycles per second. With large field strengths of one or two volts per centimeter oscillating at the alpha-rhythm frequency, decidedly unpleasant sensations are noted by human subjects." "The Brain Research Institute of the University of California is investigating the effect of weak oscillating fields on human behavior.

The field strengths in these experiments are of the order of a few hundredths of a volt per centimeter. Subjects show small but measurable degradation in performance when exposed to oscillating fields for periods of up to fifteen minutes." "The field strengths in these experiments are still much stronger, by a factor of about 1000, than the observed natural oscillations in the earth-ionosphere cavity. However, as previously noted, the intensity of the natural fluctuations could be increased substantially and in principle could be maintained for a long time, as tropical thunderstorms are always available for manipulation. The proper geographical location of the source of lightning, coupled with accurately timed, artificially excited strokes, could lead to a pattern of oscillations

that produced relatively high power levels over certain regions of the earth and substantially lower levels over other regions.

In this way, one could develop a system that would seriously impair brain performance in very large populations in selected regions over an extend period."

"The scheme I have suggested is admittedly far-fetched, but I have used it to indicate that rather subtle connections between variations in man's environmental conditions and its behavior. Perturbation of the environment can produce changes in behavior patterns. Since our understanding of both behavioral and environmental manipulation is rudimentary, schemes of behavioral alteration on the surface seem unrealistic.

No matter how deeply disturbing the thought of using the environment to manipulate behavior for national advantage is to some, **the technology permitting such use will very probably develop within the next few decades**"
"Author's note:I am grateful to J. Homer and W. Ross Adey, of the Brain Research Institute of the University of California at Los Angeles, for information on the experimental investigation of the influence of magnetic fields on human behavior."

References. **"Wiener, N., Rosenblueth, A., 1946:**

"The mathematical formulation of the problem of conduction of impulses in a network of connected excitable elements, specifically in cardiac muscle", Arch.Inst. Cardiol. Mex. 16 (3-4) 205-265.p. 21. Dynamical Systems in Physics and Biology by Professor **Norbert Wiener, Department of Mathematics, Massachusetts Institute of Technology.** "...

It is becoming abundantly clear that the nucleic acid complexes not only play a fundamental role in genetic memory, but that they probably play an analogous role in nervous memory. ...Dr. Edmond Dewan of Brandeis University and the Massachusetts General Hospital has pointed out to me that the disorganization of the nervous system which is found in schizophrenia and other mental diseases may not be entirely independent of the type of genetic disorganization which occurs in cancer."

"In connexion with nervous memory and the role of the nucleic acid complexes, I think it is quite possible that the memory properties of such complexes may be used in machines which need an artificial memory and that, just as we have the peak of the technique of solid-state physics, so that the next generation will see the use of nucleic acids as valuable engineering materials."

"In any case, I am reasonably confident that the studies of dynamical systems which I have mentioned are relevant to problems of biological organization.

The apparent role of the nucleic acids in the nervous system is going to lead to a new neurology in which long-time storage of information will probably be largely dependent on the nucleic acids or associated compounds. The nervous system will have to be regarded more and more, not as a static network, but as a network which is alive and changing its internal configurations with experience....Still we cannot treat it as if it were a computing machine network fixed for all time, and we shall have to

consider the interplay of what Professor Francis Schmitt of M.I.T. calls 'dry' neurophysiology, dealing with the established nervous network, and 'wet' physiology, which is going to centre more and more about the nucleic acids." "With an ever increasing understanding of memory and its mechanism, psychology, which has been largely a phenomenological science, is going to become more and more tied up with neurophysiology. Many other considerations which have up to the present been situated in a somewhat shameful background, **such as the study of direct communication at a distance between nervous systems, possibly by some sort of radiative phenomenon**, are going to be subjected to a real trend in scientific examinations which will not be corrupted by the unscientific assumption that we are dealing with phenomena with no physical correlates."

"...The taking of signals in and out of the body higher up in the nervous system than in our sense organs and muscles, by the amplification and manipulation of nerve impulses, is well under way in work conducted jointly by members of the Massachusetts General Hospital and M.I.T. This bids fair for the development of artificial limbs which can be used in a thoroughly voluntary way by the employment of existing nerve channels and with a minimum distortion of the personality."

Editor's note. Please see Dr. Robert Beckers books, Crosscurrents and Body Electric for details on the U.S. GWEN Ground-Wave Emergency Network and his opinion that it has potential for behavioral and cognitive alterations. See Dr. Nic Begich and his book Angel Don't Play This Haarp on the U.S. HAARP and his belief that it could be used for mind control. Please see CAHRA website, Timeline 1976 for description of the Russian woodpecker radio signal broadcast over the United States. See also CAHRA website International Documents for UN documents describing this technology in 1975 and Russia's request to ban these weapons. See also CAHRA website, Nonlethal weapons in which both sides officially deny the existence and development of psychotronic and radio-frequency weapons in separate 1980 and 1990 news articles! There are many professionals over the years who warn that there are behavioral effects from signals generated between Russia and United states since the 1960s, as far as is known. The U.S. and Russian governments are concerned about electromagnetic weapons as the documents state clearly. More research and freedom of information act requests are needed. Below are the published rumors on this technology.

Anderson, Jack. (1972, May 10). 'Brainwash' Attempt by Russian? Washington Post. B15.

"Hidden in the Central Intelligence Agency's most secret files is an account of a possible Soviet attempt to "brain-wash" our embassy personnel in Moscow with mysterious microwaves.

The fantastic details are contained in the file marked "Operation Pandora," ...In the 60,U.S. security men discovered the strange microwave impulses, some steady, some pulsating, directed into our Moscow embassy from a neighboring building. ..

At the June 1967 Glassboro meeting between President Lyndon Johnson and Soviet Premier Aleksei Kosygin, the question of the microwave rays came up. One informant insists Johnson personally asked Kosygin to end the ray bombardment, although other sources say the request was made at a lower

level....Footnote: We have spoken with Cesaro, Pollack, Sharp, Zaret and Grove.

All acknowledged they worked on "Operation Pandora," but all refuse to go into details. As Sharp put it: "Pandora," was classified in those days and still is."

No author. (1976, Mar.22). *The Microwave Furor.* Time. Pg. 15.

"...Last month the U.S. confirmed that for some 15 years the Soviet Union has been beaming microwaves at the hulking nine-story U.S. embassy... ..why is Washington being so closemouthed about the affair? "Maybe we're doing the same thing back in triple spades," suggested a former Moscow resident. Another theory is that Kissinger has soft-pedaled the issue for fear of further damaging detente. In any case, Time has learned that the State Department last week decided to launch a full-scale medical investigation of the thousands of U.S.

Gwertzman, Bernard. (1976, Jul.8). Soviet Dims Beam at U.S. Embassy But Kissinger Aide Wanted the Microwave Radiation Eliminated Altogether. New York Times.Pg.1.

"According to Mr. Funseth, [State Department spokesman] **the level of radiation aimed at the embassy was now less than two microwatts per square centimeter. ...**

American industrial safety standard, Mr. Funseth said, permit as much as 10,000 microwatts per square centimeter. The Soviet Union's stricter industrial standards permit only 10 microwatts. ...the continued beams caused a psychological problem.

UPI. (1978, Mar.28) *Mystery Radio Signals May Cause Illness.* Chico (Calif.) Enterprise- Record. Pg. 3C.

"Engineer and state health officials investigating reports of mysterious and disturbing radio signals rising across Oregon say they could be coming from anywhere-even outer space. The powerful shortwave radio pulses have been detected in Portland and Bend..."At the same time this electromagnetic sources has been detected, people have reported noises in the head, stuffiness and reddened skin. ...the Federal Communications Commission, the National Bureau of Standards, and the Environmental Protection Agency have been asked to help...The 4.75-megahertz frequency, far from the usual microwave-oven frequency, is in the range usually assigned to the federal government and for international overseas communications, he [Clifford Schrock, an electronic engineer Pacific Northwest Center for the Study of Non- Ionizing Radiation] said."

Chapter Nine

The development of mind control technology has been and is the goal of many governments and is a reality today. Here is a summary of the main points and their application to mind control experimentation. With all of the facts taken together, it can be concluded that the brain was decoded and the information was applied to intelligence tools and military technology in the 1940s to about 1965. Victims began reporting experimentation in the 1960s. The level of brain research matches this timetable. The discovery of the secret of life was linked to DNA in the 1950s and the genetic code was broken in the 1960s. As a result there is a massive gene mapping federal and worldwide program to apply the knowledge of DNA. Similarly, the teams and groups of the world class scientists, engineers, physicists, etc. were assembled in major universities, think tanks and government labs by the

military to solve military problems in the 1940s, 50s and 60s. Research on the brain was well-funded and classified as a result of the arms race with Russia, beginning with the Korean brainwashing scare of the early 1950s. Enough independence sources of information over the last 50 years corroborate the fact that the Soviet Union was interested in and were developing weapons with electromagnetic effects on biological organisms. The CIA's reaction to the Korean brainwashing scare is an example of what a fearful and important capability mind control weapons were to the U.S. government officials. Behavior experiments were conducted covertly for about 20 years. Since the 1930s science has been working on the mysteries of mental processes and how the brain works as a system. A few famous researchers included Wilder Penfield and Dr. James Olds both of whom used implanted electrodes and locate the brain's different areas such as visual and auditory locations. Sir Charles Sherrington described the brain as "an enchanted loom..

." Sir John Eccles worked at the neuronal level with the electron microscope in the 1950s, as did the noted W. Grey Walter. Eccles believes that a quantum physical effect mediates our spiritual souls and our physical brains. "Our conscious brains, he declares, are woven from subtle physical ingredients that somehow enable us to take advantage of the profound organization of our mathematically underpinned universe..." Wiener and McCulloch were examples of scientists looking for the mathematical formulas and the quantum basis for brain mechanisms. McCulloch also worked on the phenomena of vision. Wiener stated that "highly specific microradiation is a property of brain waves". He further stated that "specific types of radiation associated with nucleic acid complexes randomly scattered within neurons, when applied to encephalography should bring productive results".

Brain and electromagnetic phenomena on a quantum level are repeatedly described by the leading researchers of the day.

Several scientists described the mathematical formulas involved in wave theory and applying this to visual processes(McCulloch) and to memory(Pribram), for example. This is a necessary step to read brainwaves remotely. The visual system has been intensely studied by the military and the process was solved. Both Remond and Wiener spoke about the necessity of detecting and mathematically analyzing brainwaves in a language of simple waves. In the 1940s and 50s, Dr. McCulloch knew of Remonds outstanding work as did Dr. Lilly. Dr.Lilly stated that Remonds work could be used to stimulate the brain without electrodes and that it could be carried out on a person covertly at that time. In the 1960s Pribram, Lilly, Adey and the Institute for Defense Analysis attended Brain Research Institute Conferences with funding in part by the USAF.

Wiener stated that encephalography has been too much in recognizing wave patterns subjectively. "Too little has been done for determining what actually happens there...We have not done enough work making atlases of frequency distributions. ...This method is looking for specific numbers". Both Remond and Wiener applied wave theory and mathematics which computers could eventually do. This part of the research, mapping of brain signals would require a massive project involving many scientists. The National Institutes of Health funded Remonds work and along with many other facts demonstrates that he was on the right track.

Mapping the frequencies of the brain was another step closer to mind reading.

The U.S. pioneers in mind control development are Dr. Jose Delgado and Dr. Ross Adey. There are several but they are representative. Dr. Delgado, extensively cited in mind control literature for stopping a charging bull with remote signal to implants in the bulls brain also demonstrated in animal experiments that electromagnetic signals without implants could accomplish the same effect. Dr. Adey is widely quoted for describing the key to actually communicating with the brain remotely. Dr. Adey is a leading electromagnetic researcher who has spoken before congressional hearings on related topics, stated the following. "It is now well established that intrinsic electromagnetic fields play a key role in a broad range of tissue functions, including ...information transmission in the nervous system. These same processes may be profoundly influenced by electromagnetic fields induced by an external force."

This is the fact that the U.S. government has suppressed since the 1940s, the nonthermal effects of electromagnetic radiation.

Dr. Adey, Pribram, Hameroff and Dr. Moravec, among others, researched the brain and described electromagnetic wave properties of the brain functions **as a method of direct communication with the brain.** Dr. Possony, the Stanford Hoover Institute Fellow, Stated "Nothing is as yet know or is known publicly, on how the soliton can be aimed to produce desired effects ...will have a crucial bearing both on the body and on the brain and on defense."

All of the above are discussing communication with the brain on a quantum level using sub atomic physics and optical biophysics.

The development of SQUID, MRI and the developing HTSC are all based on similar principles. This can be related to the Tennenbaum articles on Soviet electromagnetic weapons. These are the main principles behind mind control technology.

The key to consciousness is a mathematical definition of the brain processes on a quantum level.

The many articles on MRI and brain mapping described the interest and ability to measure and decipher signals of the brain and since classified research is usually estimated to be about 20 years ahead, it is reasonable to conclude that a person's brain can be read remotely.

Penrose and Hameroff described what they felt may be the site of consciousness, where classical physical activity interacts with quantum physics. The groups of neurons transmit images, thoughts and feelings. In the article by Hameroff, Pribram and others, the abstract stated, (pg. 32) "Laser-like long-range coherent quantum phenomena may occur biologically within cytoskeletal microtubules. ...may provide a basis for biomolecular cognition and a substrate for consciousness.

This article was published in 1993, agrees with Soviet research and all of the previously cited sources of information.

This is the Holy Grail of consciousness, the precise point.

The Tennenbaum quotes are worth repeating for their clarity. The point to remember is that the mind control technology uses highly non-linear effects

of electromagnetic radiation upon living organisms. And this can range from ELF to hundreds of gigahertz.

The key is that molecules themselves are nothing but electromagnetic configurations. That is, the molecules act via electromagnetic fields by exchange of electromagnetic energy with other molecules. Scientists have identified the precise geometrical characteristics of the electromagnetic action associated with the given substance, and then just mimic the molecular action by a carefully tailored signal. This is the basis of the mind control weapons. In this research, deep secrets having far-reaching military implications have been discovered and developed.

But it was the Soviets who discovered the key to mind control technology first. The pioneers were V.I. Vernadsky, who's research program coined the military slogan "Who controls the entire electromagnetic spectrum will dominate the world". Alexander Gurvich followed Vernadsky in biophysical research and was the first to systematically demonstrate that absorption of minute amounts of "tuned" electromagnetic radiation, down to individual quanta, can decisively influence the course of biological events."

This is called the "informational role of electromagnetic radiation in biological systems". This is the key and was further developed for military purposes. Litisitsyn, wrote a paper in the 1960s which stated that the Soviets broke the genetic code of the human mind".

Much more research on this topic is needed but this is the foundation of this historic but classified discovery. The fact that Wiener and others have mentioned similar theories during the last 50 years is further support. Michael Liebig discussed the soviet design of mind control technology, include principles of lasers, particle beams, and non-linear electromagnetic pulse effects. Sub-atomic physics, modern high-energy physics, especially the use of "force free" status of plasmas, show that sub-atomic phase space has a distinct, Kepler-Gauss sort of inherent curvature. It involves the curvature of "force-free," least-action states in the sub-atomic domain. Modern optical biophysics or bioelectromagnetics and non-linear spectroscopy of living processes is combined with lessons of high-energy physics of force-free plasma states and is the key to these weapons. This was corroborated by the many article excerpts on solitons, **HTSC, SQUID and MRI. The Soviet Union had** the technological base to develop electromagnetic weapons, while the U.S. does to this day. Tannenbaum also stated that direct coupling of highspeed computers to solid state radar was needed to optimally exploit non-linear biological effects. He mentioned HTSC as a major improvement. A sophisticated EP weapon must project a specific geometry of electromagnetic field onto a distant object, over a given terrain and in given surroundings. By choosing the right geometry, the signal can be focused into any desired area, such as the brain. He discussed one relevant techniques, phased array radar. The U.S. has advanced computers and the best radar systems in the world, for example the NSA(National Security Agency) equipment.

The answer to how a victim can be targeted and tracked can be explained with this technique, phased array radar technology. Tannenbaum described the phased-array antennae and the importance of holography, which would measure fields rather than one-dimensional electromagnetic signals. The antenna is capable of locking on to a target and can track objects using computers and inverse-scattering computations within a fraction of a second. There are

satellites that can use GPS or global position system anywhere in the world and it too has been classified and developed for years. If a person gives off an identifiable electromagnetic signal, then an antenna can lock onto and track the target 24 hours a day anywhere in the world. A simplistic example would be an airport traffic controller's radar system to track numerous planes at once. Antennas today can pick up and track the individual target's signals. It is complicated and difficult to summarize but it definitely can be done.

Mind Control Technology

Correlates with Victim Allegations

By breaking the problem down to manageable size, mind control technology used in mind control nonconsensual experimentation can be described. SQUID can read minute magnetic signals from the brain and with mathematic computations correlate this to processing of light stimuli by the brain, for example. In the development of MRI in the early 1970s, fourier transforms and pulse techniques were described as a way to decipher the very minute brain signals among all the electromagnetic background noise. And in 1980, Dr. Mackay described cross-correlation as one of the most powerful computational techniques for extracting significant information from brain signals. And now Tennenbaum and many articles describe the future use of HTSC for reading minute biological signals in the late 1980s. The theory behind detecting thought processes is passing the test of time. MEG was used to pick up the magnetic signals which are oscillating millisecond fluxes of the brain in real time. If there were electromagnetic codes and programs for the brains processes that have already been discovered, (as in the gene mapping project), then the signals would have meaning. Victims report that their thoughts can be read instantly and replied to, that pictures and dreams, memories and feelings can be remotely manipulated and controlled. Every nerve and muscle of the body can now be controlled. Again, breaking the problem down to manageable amounts is very helpful in describing the technology available that could account for victim's allegations. One previous example was the artificial retina chip, a copy of the neural organization of the retina and visual processing as the human brain does.

This and the visual processing of the brain by frequencies mentioned previously could have been discovered and would account for dreams, pictures and implanted visualizations reported by victims. The hearing of voices has been described elsewhere via microwave effects by the military to be used against terrorists (see CAHRA, Intelligence tools). The manipulation of memory could be accounted for with Wiener's theory of the storage via nucleic acid complexes. Others have made the hypothesis of a molecular code

that may be searched out and finally mastered, according to discussions at the American Association for the Advancement of Science(Lessing,1967, DNA Pg. 56.). Long and short term memory may use different mechanisms and Pribram's theory of holography may be a key process. Pribram has suggested that sensory information is relayed and reconstructed by neuron interaction and also the sensory cells can interact to form a type of hologram[which is made up of electromagnetic waves].

This information combined with previously described techniques demonstrate how in principle, this could be done without a chip or implant. From the many facts, it can be concluded that the functioning of the brain has been discovered and applied to military applications. The underlying principles have been discovered.

Manipulation of feelings could be done via electromagnetic signals. Penfield described the experiments in the 1930s of stimulating areas of the cortex while surgically treating epileptic patients and patients would describe reliving of a previous memory, a flashback, smelling certain smells and feeling physical sensations. The process for targeting, areas of the brain for rage, happiness, and many other feelings most likely have been located. Manipulation of every nerve in the body can be explained via electromagnetic signals to specific locations of the brain. The process of sensations and movement may be catalogued in the atlas of signals which Wiener predicted. And the underlying brain mechanism for processing sensations have been determined. This does not seem so farfetched now that very weak signals can be detected and correlated to specific stimulus. The location of the electromagnetic source is possible with MEGs, magnetoencephalography, as stated in a previous article, (pg. 40) and therefore could be targeted by remote means. Recording the signals and then playing them back has been described as the means for direct communication with the brain. Any sensation could be created if a specifically tailored electromagnetic signal were known or mimicked and transmitted.

The military interest in solving very complicated brain processes has created the funding needed for scientific projects such as this. The robotic effects or street theatre that many victims describe is worth mentioning. Behavior of people can now be engineered as if they were puppets. Delgado's research with implants which stopped a charging bull and then with remote electromagnetic signals is one part of this puzzle. The military has done extensive research on hypnosis (see Operation Mind Control, Walter Bowart1978).

The electromagnetic signal or command is directed to the subconscious, and as in hypnosis the target will do whatever the command states. This has been demonstrated by J.F. Schapitz in government experiments(See The Controller, Martin Cannon). The brain is a complex system and there are no easy explanations. This was meant to be the beginning of a solid foundation of proof of government mind control technology that would overcome the lack of government documents that are classified under the National Security Act.

Conclusion

The capability to read and communicate remotely with the brain is a technology that governments would go to great lengths to develop, especially to surpass an enemy that is developing mind control technology also. Over 25 articles on Russian mind control are available (see also CAHRA UN Report) and a few of the many examples were presented here. The Soviets have had a documented history and interest in mind control weapons from the 1940s to the 1990s. The emerging technologies of quantum physics, brain biology and electromagnetic technology combined with cold war military funding and mind control technology was developed because of an arms race to control man. The history of the Vietnam sensors technology and targeting of populations firmly established that the military has a bureaucracy for conducting classified research that would be similar for mind control technology. It is clear that remote surveillance is very sophisticated.

DARPA and IDA, both active in sensors research, are two organizations to research further and would be likely conduits for mind control technology. Here is an absolutely classic summary of the science and government atmosphere in the early 60s in which mind control would proliferate. Charles Townes, who won the Nobel prize for invention of the laser in 1964 along with two Russian researchers, discussed DARPA in his book Making Waves, 1995. "The proposed position for me was Vice President and Director of Research for the Institute for Defense Analysis. The Institute was a nonprofit "think-tank with a very important role, run by five or six prominent universities on the East Coast, Columbia University being one of them. It managed what was known as the Weapons Systems Evaluation Group. We had to pick the right people who would be responsible for analyzing how and whether a weapon worked and its effectiveness. We also advised a new organization, the Advanced Research Projects Agency, whose aim was to consider what could be done in space, and to help initiate new ideas and technologies of importance to national security. We also advised the State Department on arms control problems. ...I met with Allen Dulles, then head of the CIA... It was a lengthy presentation of all the highly classified evidence we had. Finally he{Dullles} asked me, "What do you think?" (Townes, Pg. 199).

Tennenbaum felt that SDI, the Strategic Defense Initiative was a cover for electromagnetic weapons as the same technology is involved. He stated that in 1983, the beginning of SDI, Russian biophysics research went underground. This is when the strategic expert, Dr. Possony published his article on direct communication with the brain. So much more research is needed. It is difficult to describe scientific technology while it is classified and has not officially been used. Several independent sources support claims of the existence of government mind control and many scientists worldwide have stated that mind control technology is possible. The bureaucracy is in place and the victims are alleging serious human rights abuse. This is a serious issue worthy of further investigation. This is more than enough evidence to establish the need for an investigation. The burden of proof of obtaining the classified documents and/or tying the electromagnetic signals used on victims to the government or corporations involved, is too high and victims are suffering and dying.

It is cruel to make alleged victims of mind control experimentation and use, meet this burden of proof in order to get help. The government has been and is developing a weapon used against the brain and mind. This fact alone deserves special attention. The claims made by victims may sound crazy, but not in light of the facts. Knowing past government motive and behavior, victims deserve a compensating government mechanism for an investigation into alleged abuses. Please share your thoughts, ideas, suggestions and conclusions with CAHRA.



23. European Working Group/NON-LETHAL WEAPONS

1. INTRODUCTION

Several European organisation are currently developing and implementing non-lethal capabilities. This enables many emerging and non-traditional threats (which may appear in low intensity, asymmetric conflicts, peace support, and anti-terrorism operations) to be countered with an innovative solution.

Non-lethal weapons are of interest to both the military and law enforcement agencies as in many cases, the character of the scenarios might be similar. Non-lethal weapons can be seen as having dual-use application and they provide armed forces, law enforcement agencies, and policy makers with additional options to respond in a tailored and graduated manner. Non-lethal Weapons authorised civilian and military organisations.

2. NATO Non-lethal weapons

Non-lethal Weapons are weapons which are explicitly designed and developed to incapacitate or repel personnel, with a low probability of fatality or permanent injury, or to disable equipment, with minimal undesired damage or impact on the environment.

3. Background

Founded in 1998. Present members:

Austria, Belgium, Czech Republic, Finland, France, Germany, Italy, Netherland, Portugal, Russia, Sweden, Switzerland, United Kingdom

The working Group is open to all European organizations working in the area of Non-Lethal Weapons.

4. AIMS of the EWG-non-lethal Weapons

There are two complementary strategies of the Non-lethal Weapons to improve awareness of NLW:

1. **Holistic approach**, i.e. by considering all essential aspects (legal, ethical,

sociological, technological, medical...

2. **High Tech solutions**

5. **WHEN Non-lethal Weapons to be used?**

When it is deemed safe to do so and it is believed any life maybe saved. The benefits of using non-lethal technologies must be balanced against the risks to military or law enforcement peronnell and the general population. It should be recognized that no technology or device can be guaranteed to be completely nonlethal and injuries may still occur, even when used with minimal force according to the rules of proportionality.

6. **What types Non-lethal Weapons be used?**

Any option considered to be appropriate, acceptable and lawful given the situation. Development of new non-lethal technologies will allow military and law enforcement personnel to exploit alternative means of countering potentially hazardous threats, aexpanding their capabilty with new options that offer an acceptable alternative to lethal force.

Introduction: Nonlethal Weapons U.S.

Electromagnetic technology is a new emerging weapon with significant importance to international politics. **Electromagnetic technology has been developed internationally as a weapon of war for at least forty years, but it has been highly classified.** (Pasternak,1997). The weapons are designed to target any and every nerve of the body including the human brain. There are many independent sources that verify this little-publicized fact. "Research work in this field [directed energy weapons] has been carried out in almost all industrialized countries, and especially by the great powers, with a view to using these phenomena for anti-materiel or anti-personnel purposes." (Doswald-Beck,1990,18). ..."**[U.S.] scientists, aided by government research on the 'bioeffects' of beamed energy, are searching the electromagnetic and sonic spectrums for wavelengths that can affect human behavior.**" (Pasternak,1997,38). A 1993 Defense News article entitled "U.S. Explores Russian Mind-Control Technology" described "acoustic psycho-correction, the capability to control minds and alter behavior of civilians and soldiers..." **It uses "transmission of specific commands via static or white noise bands into the human subconscious..."** The article further stated that U.S. and Russian sources were planning "...discussions aimed at creating a framework for bringing the issue under bilateral or multilateral controls" (Opall,1993,4). These are just a few examples of the dozens of articles available on this topic.

International Use of Nonlethal Weapons

The public is now beginning to hear the debates on the strategic development of electromagnetic weapons. While much of the technology is still classified, the nonlethal weapon debate is reflective of international concerns about electromagnetic weapons. Many countries plan to use nonlethal weapons for low intensity conflict, international terrorism and peace-keeping missions. The many articles on this topic describe the great interest in and funding of nonlethal weapons and the possibilities for it's misuse. For example in Harvard International Review, Ethan Mollick described a nonlethal weapon catastrophe in the Gulf War, the use of carbon-fiber

bombs which caused widespread civilian deaths as a result of the electrical and water pump failures. Military proponents have stated that one of the main goals is to limit deaths.

Proponents claim nonlethal weapons will provide more options in conflict situations but opponents argue that more military interventions may occur based on misperceptions about nonlethal weapons.

Mollick effectively argues for an international consensus and exploration of nonlethal strategies. Mollnick does repeatedly discuss the problem of unrealistic expectations by the military and the public and stated that this is a very important issue for the future successful use of nonlethal weapons. For example, in OOTW or operations other than war, the apolitical nature of the armed services may be compromised and in a similar way there are concerns that nonlethal weapons will require new strategies and will fulfill new roles in war and will substantially change the nature of fighting. These are important issues that the strategic experts are beginning to work out.

A 1996 report by the Institute for Foreign Policy Analysis was extremely thorough and detailed about the role of nonlethal weapons on an international level. This study pointed out the important factors in developing the United States policy framework on nonlethal weapons.

Nonlethal weapons were considered an asset to military operations. This report recommended further development of a clearly worded nonlethal weapons policy so that the opponent would take the U.S. stance seriously and know that the U.S. could stand behind its stated capability. Nonlethal weapons were discussed as part of the U.S. arsenal and there were questions about issues of proliferation and problems of countermeasures.

The consensus was that the U.S. should continue staying one step ahead of other countries in nonlethal weapons technology and not worry about using the classified technology. Public discussions on this issue were encouraged and nonlethal weapons cooperation with NATO members was encouraged.

Multinational cooperation is an area of concern. Discussions concerning deterrence policy and the role of nonlethal weapons are currently being discussed. The U.S. seems to be leading the way for international policy formulations, based on the quantity and quality of the U.S. information on nonlethal weapons.

The Dangers of Nonlethal Electromagnetic Weapons

In an article commissioned by the European Parliament, concerns about "less-lethal" weapons were discussed. The European Union is concerned about nonlethal weapons and protecting civil rights. The article concluded that further research on such topics as proliferation and control are needed.

"Formal liaison arrangements between the EU and the USA" on nonlethal weapons was investigated. This further demonstrates the international importance of nonlethal weapons. Many countries are seriously incorporating the use of nonlethal weapons into their arsenals. Accordingly, concerns about maintaining a lead over other countries and of the abuse of the new technologies are being discussed by most countries today. **The European Parliament complained of the dangers of HAARP, a U.S. electromagnetic defense project and of being uninformed about the dangers after NATO and U.S. officials had declined invitations to the discussions on HAARP**

(Tigner, 1998, 3). This is a good example of the possible global implications of electromagnetic weapons and the problems involved with classified weapons programs such as miscommunication. Several articles point out similar concerns. **The discussions on nonlethal weapons has increased dramatically since the 1990s.** Most articles present a pro and con picture and that the

nonlethal arsenals are increasing in many countries. Nonlethal weapons will play a significant role in international strategies, according to the cited articles above. And they have already been deployed in Somalia during the United Nations peacekeeping missions in 1995.(Schmitt,1995) This is indicative of nonlethal international strategies on the use of the still very classified nonlethal weapons that is now in effect. Another example of the importance of electromagnetic weapons was clearly stated as follows. "In a much quoted speech made in 1974, Fleet Admiral Groshkov of the USSR, considered the "father" of modern Soviet navy, stated that "the country that best exploits the electromagnetic spectrum will win the next war." (Herron,1984,64)

Proliferation and the development of countermeasures have led to an escalating arms race. To a certain extent, the country with the money can buy this technology, but the superpowers have the leading edge technology. It is available on the international market and is proliferating at a very fast pace. (Dunigan,1996,15). This is another factor that will affect nonlethal strategic policy development.

24.Bioeffects of Selected Nonlethal Weapons

Department of the Army United States Army Intelligence and Security Command
Regraded unclassified December 13, 2006

This addendum to the Nonlethal Technologies --Worldwide study addresses in summary, some of the most often asked questions of nonlethal weapons technology, the physiological responses observed in clinical settings of the biophysical coupling and susceptibility of personnel to nonlethal effects weapons. These results identify and validate some aspects of maturing nonlethal technologies that may likely be encountered or used as nonlethal effectors in the future including:

- Laser and other light phenomena
- Radiofrequency directed energy
- Aural bioeffects

The study of electromagnetic fields and their influence on biological systems is increasing rapidly. Much of this work is taking place because of health concerns. For example, increased concern has arisen regarding the effects of operator exposure to the electromagnetic fields associated with short-wave diathermy devices, highpower microwave ovens radar systems, magnetic resonance imaging units, etc. In addition, much concern has arisen about extremely low frequency (60 Hz power frequency) electric and magnetic fields that originate from high-voltage transmission lines, industrial equipment and residential appliances. Both occupational and residential long-term exposure have been the focus of epidemiological studies. The studies have suggested possible adverse effects on human health (e.g. cancer, reproduction, etc.). Laboratory research is still being pursued to identify possible mechanisms of interaction. However, other than thermal

heating for microwave frequencies, there is no yet agreed-upon mechanism of action. . .

- Incapacitating Effect: Microwave Heating
- Biological Target/Normal Functions/Disease State
- Mechanism to Produce the Desired Effects
- Time to Onset
- Duration of Effect
- Tunability
- Distribution of Human Sensitivities to Desired Effects
- Possible Influence on Subjects
- Technological Status of Generator/Aiming Device
- Range
- Incapacitating Effect: Disruption of Neural Control
- Biological Target/Normal Functions/Disease State
- Mechanism to Reproduce the Desired Effects . . .
- Recovery / Safety . . .
- Laser-Induced Biological Effects . .

25.MORE INFORMATIONS...."MIND CONTROL WEAPON"!

- international research of MINISTRY OF DEFENCE AMERICA
- secret research MINISTRY OF DEFENCE AMERICA/PENTAGON
- "Ministry of defence" of each country NATA
- NATO from 1980 participate with DARPA-NAVAL!
- IRIS - /Ministry of defence USA/ satellite tracking peoples
- MATRIX - reading thoughts "brain machine computer system"
- "Pilot study - experiment" - reasons -
"reading thoughts in car, home, on job "
- DARPA - nano technology
- NAVAL - satellite research laboratory
- MARYLAND... bio computers
- NASA... nano computers

Criminal use of an electronic weapon is a Class D crime.

1.Except as provided in subsection 4, a person is guilty of criminal use of an electronic weapon if the person intentionally, knowingly or recklessly uses an electronic weapon upon any other person.

2.As used in this section, "electronic weapon" means a portable device or weapon from which an electrical current, impulse, wave or beam may be directed, which current, impulse,wave or beam is designed to have a disabling effect upon human beings.

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Reasons of "mind control peoples":

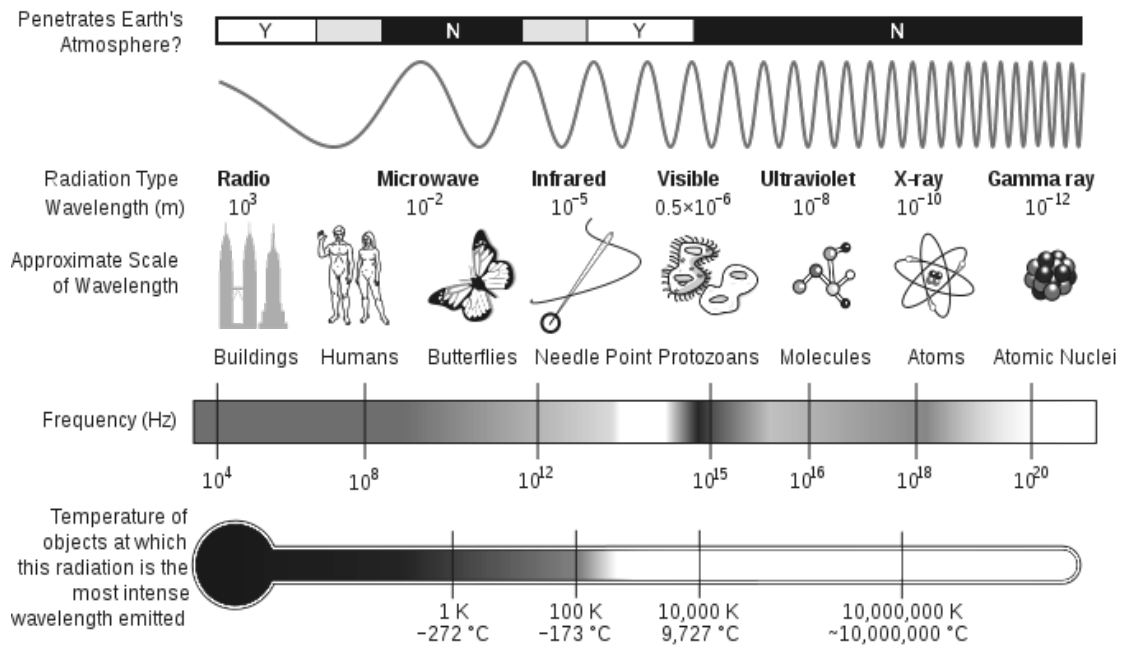
- against terrorism (finde through satellite with DNA terrorists, criminal peoples....)
- human behavior (change behavior with V2K and decoding thoughts.. for all country the world and Afganistan - "control peoples")
- human protection program - millitary pilots, some agents CIA, FBI... (no moby - just V2K synthetic thelepathy and 100 % security of communication..)

ELECTROMAGNETIC RADIATION

Electromagnetic radiation (often abbreviated **E-M radiation** or **EMR**) is a form of energy exhibiting wave-like behavior as it travels through space. EMR has both electric and magnetic field components, which oscillate in phase perpendicular to each other and perpendicular to the direction of energy propagation.

Electromagnetic radiation is classified according to the frequency of its wave. The electromagnetic spectrum, in order of increasing frequency and decreasing wavelength, consists of radio waves, microwaves, infrared radiation, visible light, ultraviolet radiation, X-rays and gamma rays. The eyes of various organisms sense a small and somewhat variable window of frequencies called the visible spectrum. The photon is the quantum of the electromagnetic interaction and the basic "unit" of light and all other forms of electromagnetic radiation and is also the force carrier for the electromagnetic force.

Electromagnetic radiation carries energy and momentum that may be imparted to matter with which it interacts.



Electric beam in a vacuum

In a vacuum (e.g. in space), an electric discharge can travel a potentially unlimited distance at a velocity slightly slower than the speed of light. This is because there is no significant electric resistance to the flow of electric current in a vacuum. This would make such devices useful to destroy the electrical and electronic parts of satellites and spacecraft. However, in a vacuum the electric current cannot ride a laser beam, and some other means must be used to keep the electron beam on track and to prevent it from dispersing: see particle beam.

Particle beam

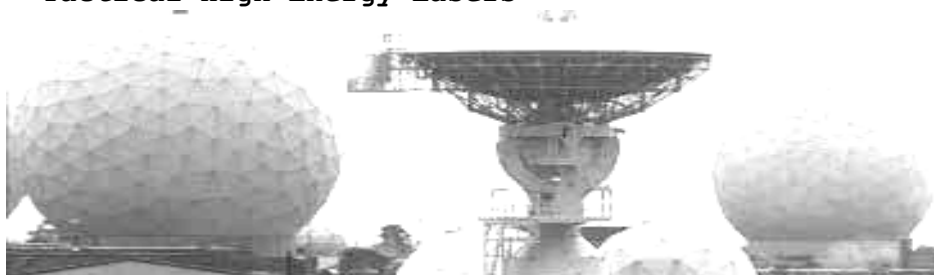
Though particle beams are perhaps most famously employed as weapon systems in science fiction, the U.S. **Defense Advanced Research Projects Agency - DARPA** started work on particle beam weapons as early as 1958, two years before the first scientific demonstration of lasers. The general idea of particle-beam weaponry is to hit a target object with a stream of accelerated particles moving at near the speed of light and therefore carrying tremendous kinetic energy; the particles transfer their kinetic energy to the atoms in the molecules of the target upon striking, much as a cue ball transfers its energy to the racked balls in billiards, thus

exciting the target's atoms and superheating the target object in a short time, leading to explosion either of the surface layer or the interior of the target. Currently, the materials for such weapons are "high-risk" and may not be developed for some time.

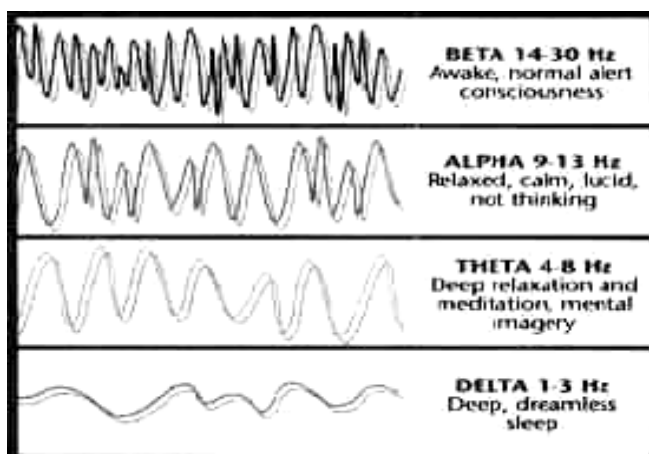
The Defense Advanced Research Projects Agency (DARPA) is an agency of the United States Department of Defense responsible for the development of new technology for use by the military. DARPA has been responsible for funding the development of many technologies which have had a major effect on the world, including computer networking, as well as NLS, which was both the first hypertext system, and an important precursor to the contemporary ubiquitous graphical user interface.

Deuterium fluoride lasers have found military applications:

- **MIRACL laser**
- **Pulsed Energy Projectile**
- **Tactical High Energy Lasers**



Electromagnetics



Brain waves showing levels of sleep or relaxation

1. BIO-ELECTROMAGNETICS

Electromagnetic, Very low Frequency Electromagnetic radiation - Sleep attacks, sleepiness

Electromagnetic, Active Denial System - millimeter waves, supercharged versions of microwaves, to heat up the skins nerve endings

2. ELECTROMAGNETICS

Electromagnetic, High Power Microwave - HPM Weapons - Energy generated by a conventional electromagnetic apparatus, such as a radar transmitter, or released from a conventional explosion converted into a radio-frequency weapon which causes the disruption of electronic systems. Usually an ultra-wide band source focus due to target vulnerability considerations. HPMs can also cause human unconsciousness without permanent maiming by upsetting the neural pathways in the brain and/or death [256,278].

Electromagnetic, Thermal Gun - A device that directs energy to produce heat, in concept similar to a microwave oven [565].

Electromagnetic, Radio Frequency - RF Weapons - A class of weapons which transmit short, high-powered pulses of electromagnetic radiation over significant ranges [278].

Electromagnetic, Engine Kill⁴ - The use of high-powered microwaves to kill the electrical system of an engine.

Electromagnetic, Maser - Microwave Amplification by Stimulated Emission of Radiation. A microwave generation device.

Electromagnetic, Interference (EMI) - Flight control systems of military aircraft are sensitive to electromagnetic interference (EMI). It is suspected that several crashes of Army UH-60 Black Hawk helicopters may have resulted when they flew too near large microwave transmitters [278].

Defence R&D Canada

Technical Memorandum

DRDC TM 2004-006, December 2004

1. Radio Frequency Weapons and Directed Energy Weapons

(Annex D)

High Power Microwave Weapons (HPMWs) form a sub-set of directed energy weapons and are used to damage or destroy enemy equipment, facilities (and possibly personnel), by irradiating them with electromagnetic waves of high intensity, from a distant or standoff location. Primarily, HPMWs are intended to cause a function "kill" of the target attacked by disturbing, upsetting or damaging the target's electronics by HPM irradiation, and are thus most useful in disabling rather than destroying "intelligent systems". In such applications, lower energies are needed to disable, rather than destroy equipment (such as missiles, vehicles or communications facilities). Since microwaves are part of the electromagnetic spectrum, they travel at the speed of light, a speed that is many orders of magnitude greater than the fastest shell or missile. This fact makes HPMWs operationally useful since it provides exceptionally short reaction times in self-defence situations, for example, against incoming cruise missiles once the latter have been detected by radar or by other means.

Adding a capability such as electronic beam steering by means of phased-array antennas, a HPMW could defend against a concerted attack by many missiles approaching from a given direction or sector. Numerous self-protection and attack scenarios exist in the defence context, and offer a sense of the possibilities, advantages and limitations of HPMWs in typical

situations, as opposed to predicting the characteristics and capabilities of future weapon systems. Scenarios of self- protection include: large ships against incoming cruise missiles; large aircraft against surface- to-air and anti-aircraft missiles; fighter aircraft against attacking missiles; and military units against attacks by 'intelligent' ammunition. In the same way, attack scenarios include:

suppression of enemy air defence and C3I facilities; disablement of enemy low-earth orbit satellites and other high-value targets; dispersion of crowds, rioters and in counter-terrorist situations using non-lethal HPMWs; and disablement of an enemy's domestic critical infrastructure, transportation and communications systems and its civilian defences. While countries such as the US, France, UK and Russia are the main players in the field of HPMWs, DRDC is Canada's only player in this field and the current level of effort is minimal, because of the anticipated high development costs. Sharing of HPM technology between minor players, such as Canada, and the major international players is also minimal. Yet the interest for HPMWs from CF clients is growing, as the number and diversity of potential applications (for both self-protection and attack purposes) increases. The potential R&D opportunities identified by the author are: (1) exchange information among the CF services (land, maritime, air) and coordinate all CF requirements with the DRDC R&D programs' ability to meet those requirements; (2) develop a coordinated strategic direction and research areas in which DRDC can play a role; (3) secure DRDC funds and other resources to upgrade the existing facilities to a position where they can play a significant role in exploiting HPM technology for CF purposes.

2.Acoustic Weapons (Annex E)

Acoustic weapons are devices that are used to aim mechanical energy at a target using sound waves and air pressure as carriers. While the use of sound as a weapon of psychological warfare in historical battles has been written about since antiquity, verification is impossible. More recently, sound in the audible range has been used in psychological warfare operations creating a variety of effects, depending on the frequency/wavelength and intensity of the sound: hearing interference, performance degradation, pain, temporary hearing loss and tissue damage. In crowd control operations, sound "blasters" have been used to deter or repel people, and are commercially available to police and military forces.

Although generally unverifiable and irreproducible, claims abound about the incapacitating nature of "infrasound", the inaudible region below the audible. "Infrasound" or low frequency acoustic oscillations can theoretically be used to induce resonant vibrations, matched to the resonant or natural frequency of the target body's organs or cavities. Weaponizing such devices is difficult because infrasound is dispersive, non-directional, limited in range, and dependent on a large number of characteristics of the target (mass, size, mechanical properties of internal organs, age, gender, and degree of fitness). Physically massive and bulky, "infrasound" weapons (given their current state of technological development) would likely be uncontrollable and unpredictable, possibly causing as much disruption to one's own forces as to the enemies'. Sound intensity (persistent for about ten seconds), meanwhile, has more demonstrable physiological effects in humans, from irritation (at the modest

power levels), to sickness/headaches, to loss of bodily functions, and finally to total incapacitation (at the very highest power levels). "Ultrasound", in the frequency range higher than the audible, can be formed into beams, and at low power is used in a variety of procedures: non-destructive evaluation of materials and non-invasive medical/dental investigations and therapies. At high power needed for weaponization, propagation becomes non-linear, and is highly dependent on atmospheric conditions, limiting the effective range and the ability to control the effective power level at the target. Although claims have been made about the psychological and skin surface physiological effects of "ultrasound" weapons, it is generally believed, in the scientific community, that such weapons do not affect the target's psychological behaviour beyond the physiological, aural discomfort.

Early R&D indicates that Vortex ring generators may be able to deliver low frequency periodic shock waves, which combined with high noise levels, could be used as a crowd control device. Single burst vortex ring are able to knock targets off balance at short ranges, without doing any long-term harm. Vortex rings could also transport irritants (gas or particulates) to enhance crowd control. The opportunities for weaponization of acoustic devices (for defence applications) seem limited at present, and despite some claims in the literature the technology does not seem to have passed the level of annoying/repelling people through the use of mere sound intensity. Many countries have reduced the amount of their R&D effort in this direction.

3. Laser interaction with the human body

The organ most vulnerable to laser radiation is the eye. Depending on the wavelength of operation of the laser (Fig. 3), the character and degree of damage can vary substantially. If it is in-band (Fig. 4), adverse laser effects are generally believed to be limited to the retina. Thus in the visible and near infrared (400 to 1400 nm), the magnification of the eye lens comes into play and the laser beam is focused onto a very small spot on the retina. The magnification effect can reach 100,000 times, so a few $\mu\text{J}/\text{cm}^2$ are sufficient to damage the retina. The effect upon the retina of in-band lasers may vary between a temporary reaction without residual pathological change and permanent blindness. As the retinal irradiance is increased, they may cause lesions whose progress in severity up to vitreal haemorrhages of the retina with leakage of blood into the inner eyeball where the damage is permanent.

A laser operating out of band to the eye requires a higher level of density to cause irreversible damage. For instance, near-ultraviolet radiation will penetrate only as far as the lens, whereas IR radiation ($10.6 \mu\text{m}$ for example) will be absorbed in the cornea. In this case, the damage threshold is more than 2000 times higher than that for the in-band laser. However, cornea burns are extremely painful and would result in immediate incapacitation of the person involved.

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Description of the Technology

RF (radio frequency) weapons consist of non-nuclear electromagnetic pulse (NNEMP) and high-power microwave (HPM) weapons, whose energy is characterized by the long wavelength (low frequency) portion (radio waves and microwaves) of the electromagnetic spectrum. A directed energy weapon (DEW) constitutes a system using directed energy primarily as a direct means to damage or destroy enemy equipment, facilities, and personnel.

High Power Microwave Weapons

High Power Microwave Weapons (HPMWs) are directed energy weapons, which are designed to attack a target by irradiating it with electromagnetic waves of high intensity over a certain distance. As indicated by their name, HPMWs use the microwave section of the electromagnetic spectrum, which we define to cover the frequency span from 300 MHz to 300 GHz, corresponding to wavelengths from 1 m to 1 mm. The label "high power" means that the microwave source in question is able to generate a peak power of more than 100 MW or an average power of more than 50 kW (where average power means the power averaged over one second).

The intended effect of an HPMW is to cause a function kill of the target attacked by disturbing, upsetting or damaging the target's electronics by HPM irradiation. This corresponds to the idea that HPMWs are primarily

useful against "intelligent systems" and do not waste energy on mechanical destruction.

International

The U.S., France, U. K. and Russia are the main players in this technology. Russia advertises sources that can be bought off the shelf. From the U.S. also, it is easy to buy sources with peak power ranging into 100's of Megawatts. The information on whether any of these nations are deploying these sources as weapons for any of the scenarios mentioned above is classified and is not shared. One exception is the Non-Lethal HPMW against hostile crowds. This is advertised in the U.S. and is available off the shelf. In the U.S. the main player is the Phillips Air Force Laboratories at Albuquerque, NM.

NATO - Tactical Implications of High Power Microwaves

This is classified study.

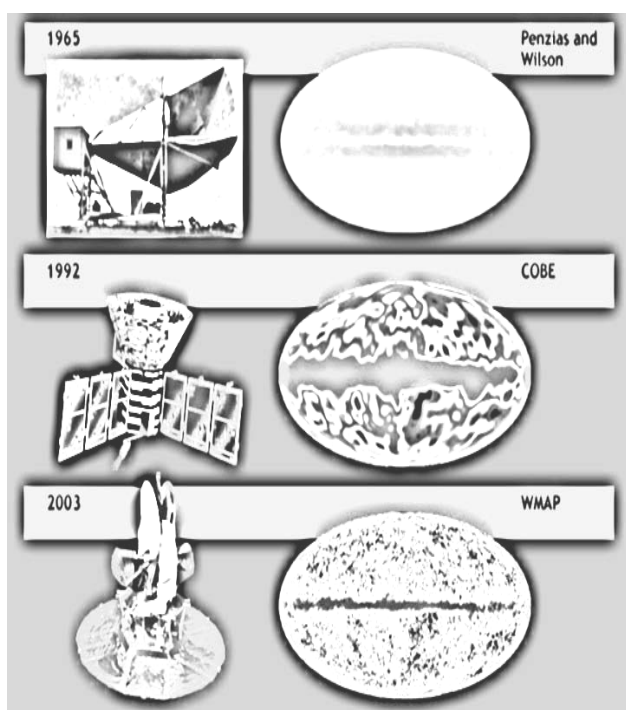
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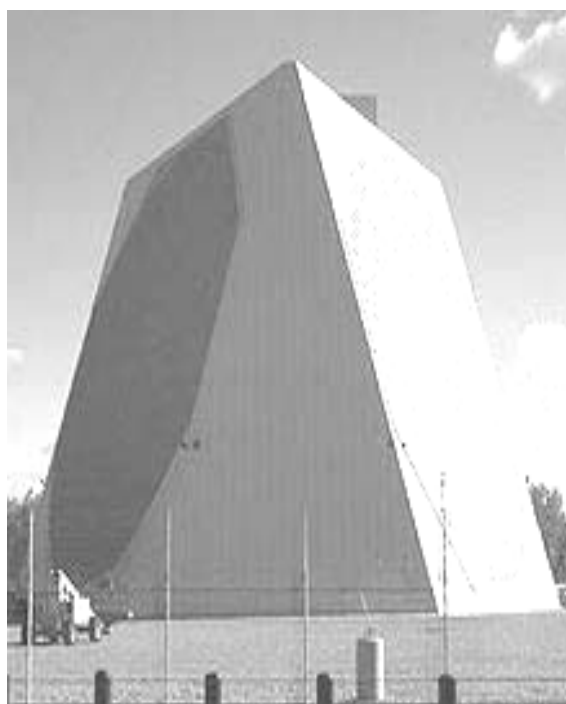
Investigations ; Microprocessors ; Microwave equipment ; Microwave transmission ; Microwaves ; Sensitivity ; Threat evaluation ; Vulnerability ; Weapon systems ; Weapons effects

Abstract

Basic characteristics of HPM weapons are described, and key components are considered in some detail. Various system aspects and requirements for HPM weapons are discussed, especially as regards the required power level for inducing the intended effects. Operational aspects and possible future roles of HPM weapons are given some consideration. Following the chapters related to HPM weapons, a more in-depth study of the actual effects of HPM on electronic components and equipment is presented. A rather extensive collection of experimental results from national programs is included. Significant differences have been found between the susceptibility of different types of computers, e.g., newer versus older. Protective measures have to some extent been studied by carrying out experiments on computers that have been modified, e.g., by mounting microwave absorbers at several places inside the computer. Specific measurements of the field at various locations inside computers illuminated by microwave fields are included. Likewise, some examples of the use of computer modeling are shown. Finally, the report contains results from experiments using prototypes of small-scale HPM devices. As a conclusion, current and generally available technology makes HPM a real threat to equipment and installations based on electronic circuits.



(HPM) Microwave weapon



Radar array - space

Brain-computer interface

A brain-computer interface (BCI), sometimes called a direct neural interface or a brain-machine interface (BMI), is a direct communication pathway between the brain and an external device. BCIs are often aimed at assisting, augmenting or repairing human cognitive or sensory-motor functions.

Research on BCIs began in the 1970s at the University of California Los Angeles (UCLA) under a grant from the National Science Foundation, followed by a contract from DARPA. The papers published after this research also mark the first appearance of the expression brain-computer interface in scientific literature.

Naval Medical Research Center

Walter Reed Army Medical Center

U. S. Army Medical Research and Materiel Command

MICROWAVE BIOEFFECT CONGRUENCE WITH SCHIZOPHRENIA

John J. McMurtrey, a Copyright 2002, 8/25/03

In view of the documentation for microwave technology to induce internal voice in humans, the correlation between microwave bioeffects and schizophrenia is reviewed. These correlations are extensive and include cognitive deficit, electrophysiologic activity, startle decrease, neurotransmitter changes, hormone alterations, immune alterations, mitochondria deficits, deleterious histologic change in disease reduced brain areas, activation of hallucination involved brain areas, and ocular disease. Schizophrenia correlates with microwave bioeffects such that congruence indicates microwave involvement with this disorder. The development of methods to exclude microwave means in psychosis is imperative, and research is proposed.

Table I

SCHIZOPHRENIA SIGN/SYMPOM CORRELATION WITH MICROWAVE BIOEFFECTS

Cognitive/Physiologic Parameter	Schizophrenia Sign/Symptom	Microwave Bioeffect
Cognitive Function		
Memory Deficit	Deficits in Memory and Working Memory	Child Short Term Memory Deficit, Rat Conditioned Avoidance and Spatial Memory Deficits
Time Estimation	Overestimation of Short Intervals	Rat Shortened Inter-Response Times and Increased Responses in Time Estimation Tasks
Temporal Order	Temporal Order Memory Deficits	Human Decrease in Temporal Order Discrimination, Rat Response Sequencing Deficits

Startle Response	Decreased in Some Patients	Decreased in Animals
Coordination/Balance	Decreased Coordination and Balance	Decreased Child Coordination, Rat Decrease in Coordination and/or Balance
Electrophysiology		
Contingent Negative Variation	Decreased in Patients	Decreased on Human Cell Phone Exposure
Event Related Auditory Response	Decreased in Patients	Decreased in Animals, Component Decrease in Human Cell Phone Exposure
EEG Delta Waves	Increased in Patients	Increased in Humans and Animals
EEG Beta Waves	Increased in Patients	Increased in Humans and Rats

SCHIZOPHRENIA SIGN/SYMPTOM CORRELATION WITH MICROWAVE BIOEFFECTS

Physiologic Parameter	Schizophrenia Sign/Symptom	Microwave Bioeffect
Lipids		
Phosphorylation	Decreased on Magnetic Resonance Spectroscopy	Decreased P ³² Lipid Incorporation
Peroxidation	Increase in Patients	Increased <u>in vitro</u> and in Rats
Blood-Brain Barrier	Suggested Impaired in Patients	Reported Decreased in Numerous Studies
Anatomy & Histology		
Hippocampus	Hippocampal-amagdala Complex Volume Reduced in Most Studies	Degenerative Hippocampus Histology Reported

Thalamus	Volume Reduction Observed in Many Studies	Degenerative Histology Reported
Cerebellum	Changes Observed in Many Studies	Degenerative Histology Reported
Cortex	Volume Reductions Observed in Frontal and Parietal Cortex by Many Studies	Several Reports of Degenerative Unspecified Cortex Histology
Metabolic Activation	Hallucination Activates Temporal Lobe, and Thalamus with Collicular Activation Found in Some Studies	Animal Activation of Temporal Lobe, Thalamus, and Inferior Colliculus on Hearing Effect Pulsed Microwaves
Ocular Disease		
Cataract	Subcapsular Cataract Reported Without Association to Medication	Known Cause of Subcapsular Cataract
Retinopathy	Associated with Widely Prescribed Anti-Psychotics	Associated with Occupational Exposure and Experimentally Produced
Voice Transmission	Hallucination Most Common Symptom	Voice Transmission Affirmed

Inner Voice, Target Tracking and Behavioral Influence Technologies

John J. McMurtrey, M. S. a Copyright 2003,

ABSTRACT

Inner voice transmission development by ultrasound and microwave technique is reviewed as well as target tracking literature. References recognizing behavioral influence technologies are surveyed along with reported instances of the use of microwave and ultrasound energy forms on people. Many aspects of the considered literature directly contradict professional presumptions, particularly within the psychological and psychiatric communities.

INTRODUCTION

People discerning remote manipulation corresponding to technology capable of such influence have formed protest organizations across the world. Educated society is uninformed regarding authentic documentation of the development and existence of these technologies, and is without appreciation of the hazard. Complaint of 'hearing voices' and perception of other remote manipulation must receive appropriate scientific and legal investigation with protection. Professional awareness is virtually absent with eminent texts and opinion being presumptive, without appraisal of the evidence.

Herein is substantiated:

1. The development of remote wireless ultrasound and microwave internal voice transmission.
2. Human tracking technologies.
3. References recognizing behavioral influence capabilities and the use of such technologies against humans.

MICROWAVE HEARING

There are early references to "radiofrequency hallucination" and of reaction to radio wave energy by Italian authors that may have observed radio frequency hearing phenomena, but the observations were poorly characterized, at least in available English publications. However sound perception was known through radar technicians in World War II and the late 1940's who had microwave hearing effect anecdotes. Though most literature on the hearing effect refers to microwave hearing, the phenomenon extends below microwave frequencies, and radio frequency hearing is also an appropriate term. Allan H. Frey was the first to substantially characterize the microwave hearing effect in a series of articles beginning in 1961. Subjects can hear appropriately pulsed microwaves at least up to thousands of feet from the transmitter. Transmitter parameters above those producing the effect result in a severe buffeting of the head, while parameters below the effect induce a pins and needles sensation.

Peak power is the major determinant of loudness, though there is some dependence on pulse width. Pulse modulation appears to influence pitch and timbre. Microwave hearing is described as perceived within or near the head. The hearing effect can be produced from radio frequency components of magnetic resonance scanners. Direct microwave hearing experience by many microwave workers, and the phenomenon's well replicated animal definition makes this the most accepted of low power microwave effects. Review of human and animal microwave hearing confirmation by independent investigators establishes validity. Designs for scaring birds away from aircraft or other hazards by microwave hearing and induction of vertigo exist. **While working for the Advanced Research Projects Agency at Walter Reed Army Institute of Research, Sharp and Grove discovered "receiverless" and "wireless" voice transmission.**⁷³ Their method was simple: the negative deflections of voiceprints from recorded spoken numbers were caused to trigger microwave pulses. Upon illumination by such verbally modulated energy, the words were understood remotely. The discovery's applications are "obviously not limited to therapeutic medicine" according to James C. Lin in *Microwave Auditory Effects and Applications*.

A Defense Intelligence Agency Communist literature review affirms microwave sound and indicates voice transmission. The report states: "Sounds and possibly even words which appear to be originating intracranially

(within the head) can be induced by signal modulation at very low average power densities." Among weapon implications are "great potential for development into a system for disorientating or disrupting the behavior patterns of military or diplomatic personnel." An Army Mobility Equipment Research and Development Command report affirms microwave speech transmission with applications of "camouflage, decoy, and deception operations." "One decoy and deception concept presently being considered is to remotely create noise in the heads of personnel by exposing them to low power, pulsed microwaves . . . By proper choice of pulse characteristics, intelligible speech may be created" quotes the report.

The Brunkan Patent # 4877027 "Hearing system" is a device for verbal microwave hearing.

The invention converts speech with remote introduction into the head by parabolic antenna. The microwave spectrum granted by the patent is from 100 to 10,000 MHz (0.1-10 GHz) with pulse width from 10 nanoseconds to 1 microsecond, and bursts of such pulses lasting from 500 nanoseconds to 100 microseconds. Preferred operation is at 1000 MHz, which is the frequency of optimal tissue penetration.⁷⁸ Bursts of narrowly grouped, evenly spaced pulses determine sound intensity by their amount per unit time. A similar German patent for remote antenna microwave voice transmission is also based on microwave bursts. A microwave voice transmission patent with a non-remote transducer that is based on microwave bursts is "designed in such a way that the burst frequencies are at least virtually equal to the sound frequencies of the sounds picked up by the microphone."

The maintenance of isolated hearing effects on people requires obstacle penetration and target tracking. Internal voice capable energy forms penetrate obstruction and can be localized. Sound transmission through enclosures is a common experience. Human tracking ability is not nearly as apparent for ultrasound as for microwave radar, but ultrasound is being developed to discern movement through walls. Though ultrasound is unnoticed even at high intensity and can pass through walls, a significant portion of the encoded sound from ultrasound speakers reflects audibly upon striking hard flat surfaces. Common technology utilizes the radio frequency hearing spectrum, which encompasses cell phone, TV, and radar frequencies. A variety of antennae localize the structurally penetrating radiation with collimation or focusing. The Luneburg lens emits parallel rays and has over 50 years utilization. Masers are another method of collimation.

Military radar systems listing human tracking capability include: Advanced Radar Surveillance System (ARSS-1) by Telephonics; Beagle Portable Ground Surveillance Radar by Pro Patria; AN/PPS-5D Man-Portable Battlefield Surveillance Radar by Syracuse Research Corp.;¹²⁴ Squire LPI Ground Surveillance Radar by MSSC Corp.; and Manportable Surveillance and Target Acquisition Radar (MSTAR) by Systems & Electronics, Inc.,¹²⁶ which have ranges from 7-12 km for personnel tracking. Some of these internet examinable references extend their capability from that listed in the 2000-2001 **Jane's Radar and Electronic Warfare Systems (NAVAL Space Command)**,

which lists 13 target acquisition or tracking systems specifying such capability on personnel, purchased by militaries of some 27 countries. Besides Russian manufacture there are also East European producers of such systems.

The most widely deployed system is the Rasit ground surveillance radar by Thomson CSF AIRSYS, which lists 20 km as 90% probability of detection for humans. Earlier systems have been in use since the Vietnam War. Basic operation of these systems involves a track initiation processor acquiring a target, while a data association filter maintains a tracking lock on the target. The above designs feature infantry portability or mobile forward deployment, and cannot be regarded as the limit of capability, since larger radars have a range of 100 miles, though lacking human tracking specification.

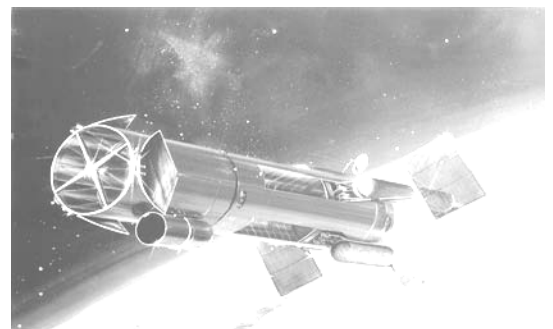
A quarter of a century ago, **Jane's Weapon Systems** listed some 32 weapons fire control designs whereby aiming was entirely determined by radar tracking data with at least 10 systems primarily designed for control of one weapon system.¹³ 2 Eight weapons guidance systems utilized microwave target illumination by a dedicated surface beam (called semi-active homing). Sensors for more recent active guidance systems also illuminate targets for both laser¹³³ microwave radar units that are compact enough to be onboard the missile, and so inexpensive as to be disposable with the weapon.

DEW - Directed Energy Weapons

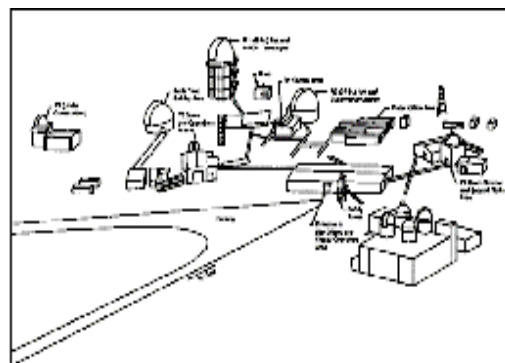
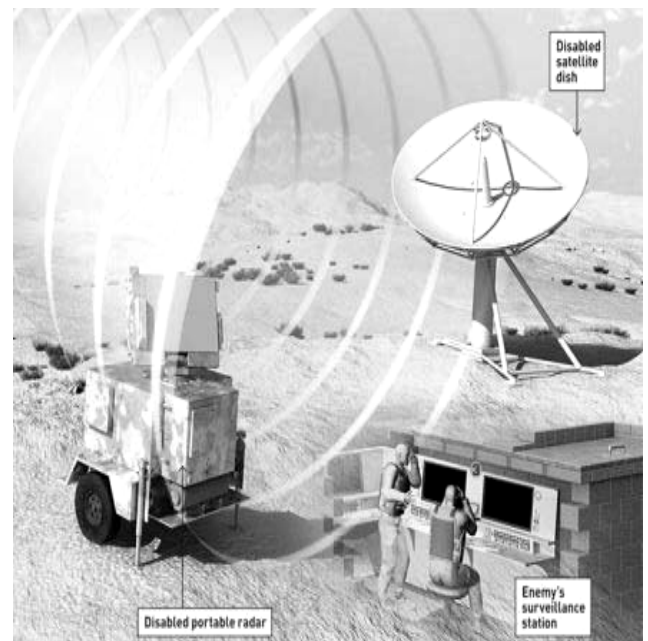
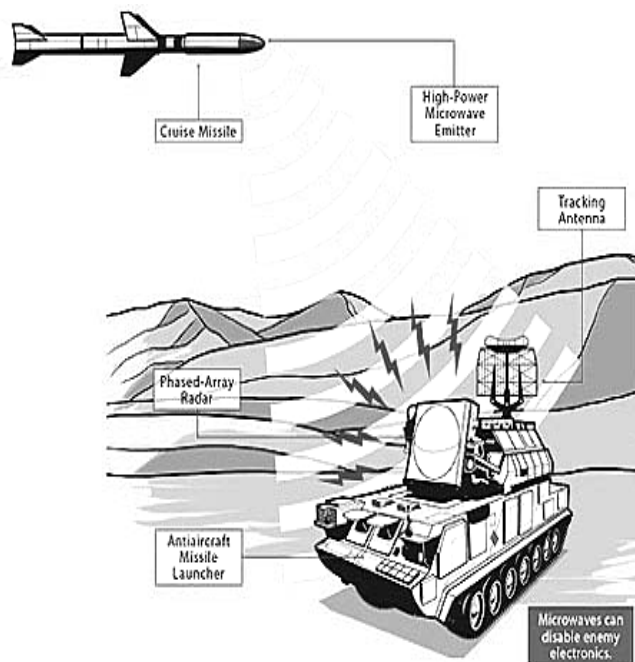
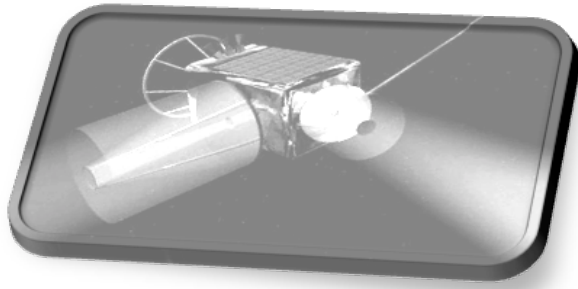
HPM - High Power Microwave



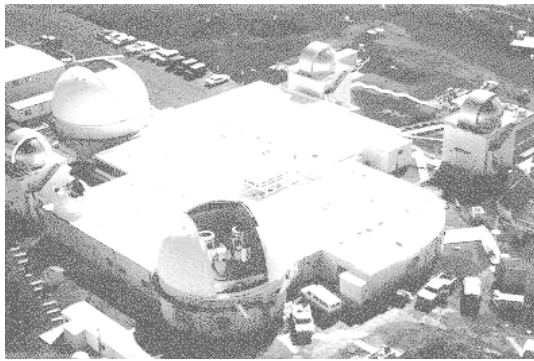
HEL - High energy laser



AHEL - Satellite TRW



MALABAR –test objekt



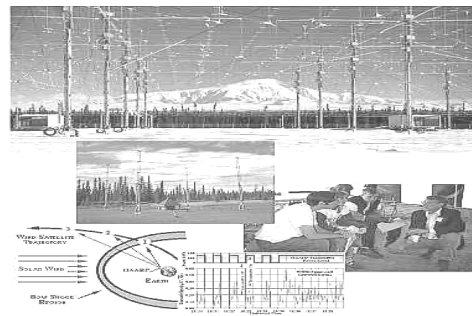
MAUI - SPACE



SPY BASE – England



RT16 Radio Telescope Latvia



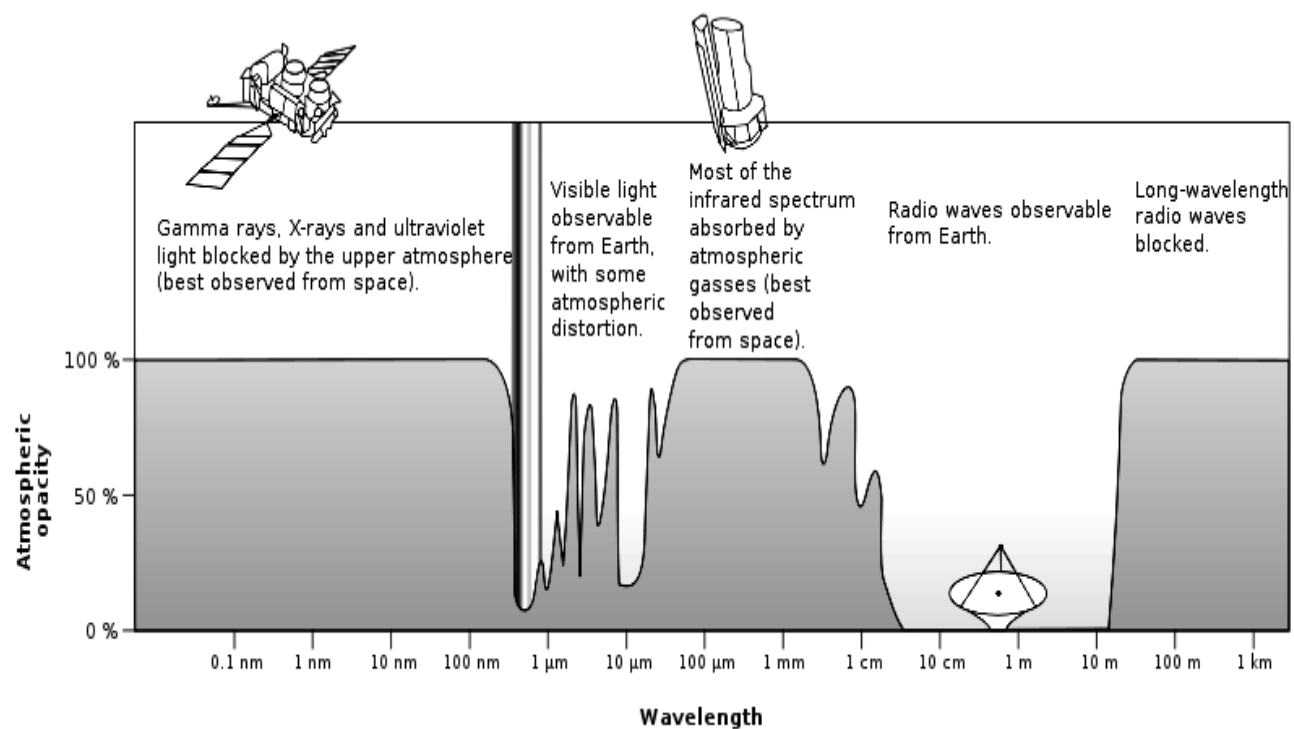
»HAARP« Alaska



**»OTH« Radar system - USA, Russia, France, Australia
Ukraine**



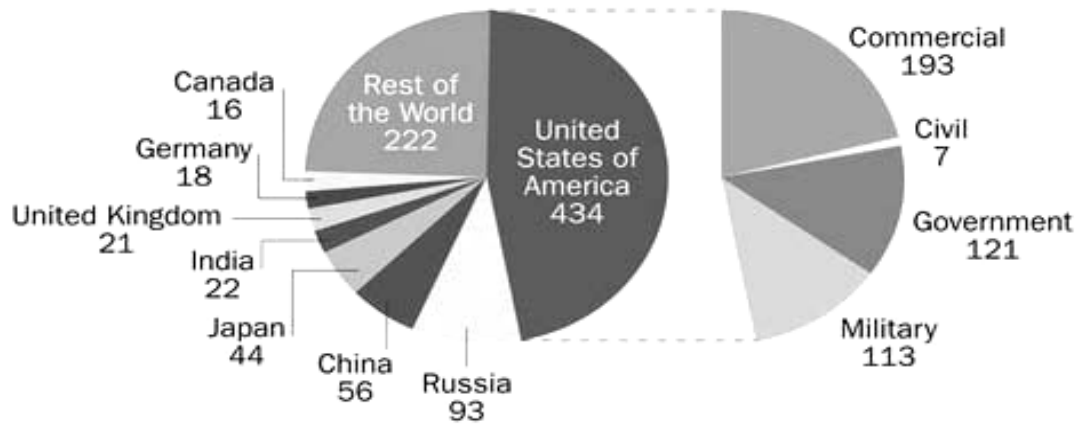
RADAR ARRAY transmitter



Signals Intelligence

	First generation 1960s	Second generation 1970s	Third generation 1980s	Fourth generation 1990s	Fifth generation 2000+
SIGINT					
PROGRAM					
<u>GEO- USAF</u> COMINT		Canyon	Chalet Vortex	Mercury	Intruder
<u>GEO-CIA</u> ELINT		Rhyolite Aquacade	Magnum Orion	Mentor	
<u>HEO- USAF</u> ELINT			Jupmseat	Trumpet	Prowler
<u>LEO- USAF</u> ELINT	Ferret		Sub-Sat		SB-WASS
<u>LEO- NAVY</u> ELINT	Grab		NOSS	SB-WASS	

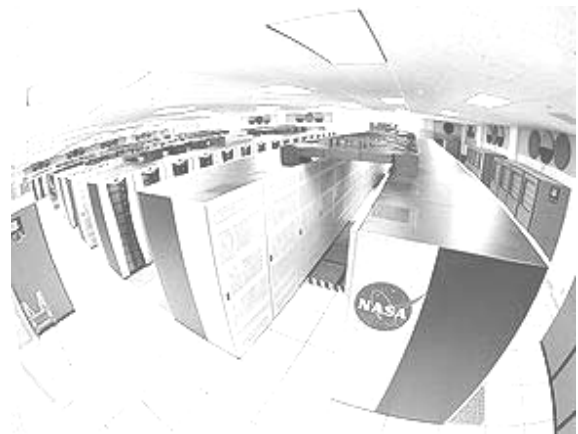
Satellites Currently in Use



SATELLITES CURENTLY IN USE



NASA SATELLITE communication

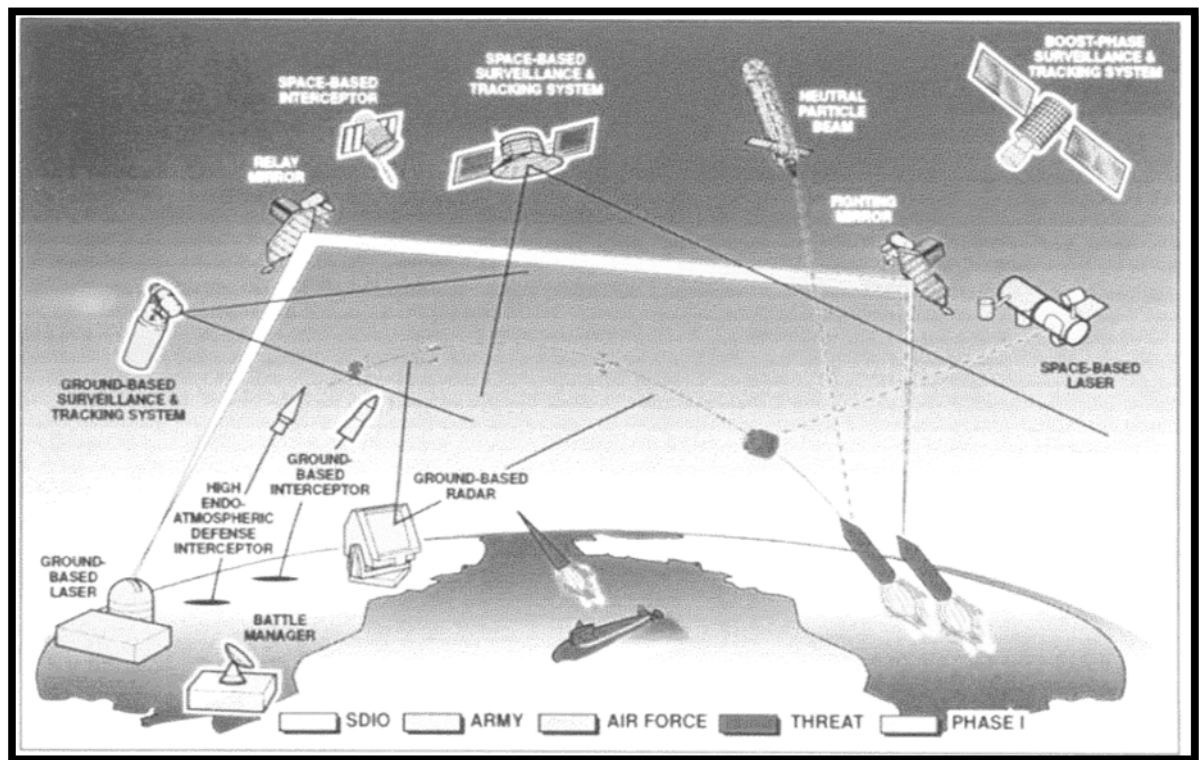
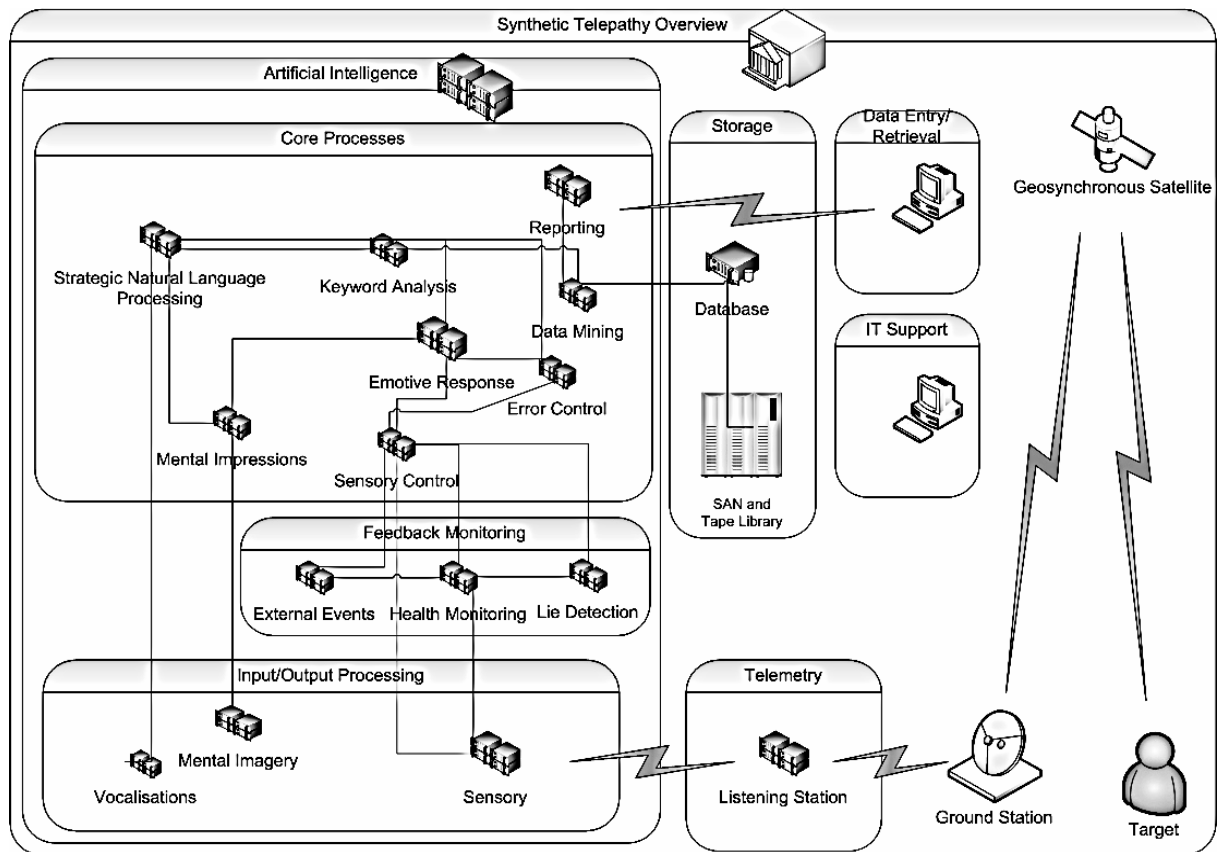


NASA COMPUTERS

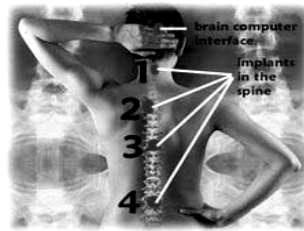


COMPUTERS READS MINDS





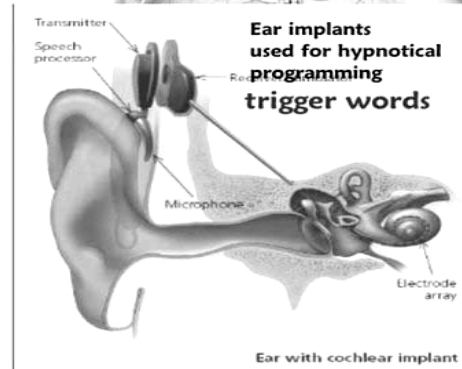
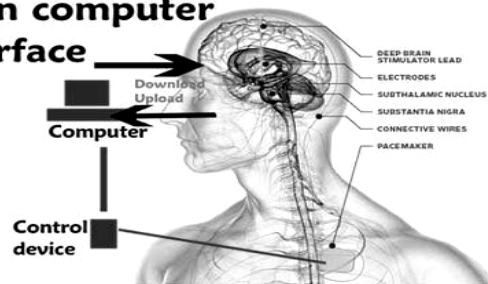
A brain computer interface creates a two way link between the human brain and a computer. The person that controls the control device controls the brain computer interface!



My Implant locations

The implants are activated when the persons having the implant is under distress. I usually feel the implant number 2 activated first. It reaches implant nr. 1 (the back of the head) leading to dubbel vision. Implant number 3 and 4 are directly wired to the brain computer interface.

brain computer interface



Gang stalking

Pain, anger, depression, distress

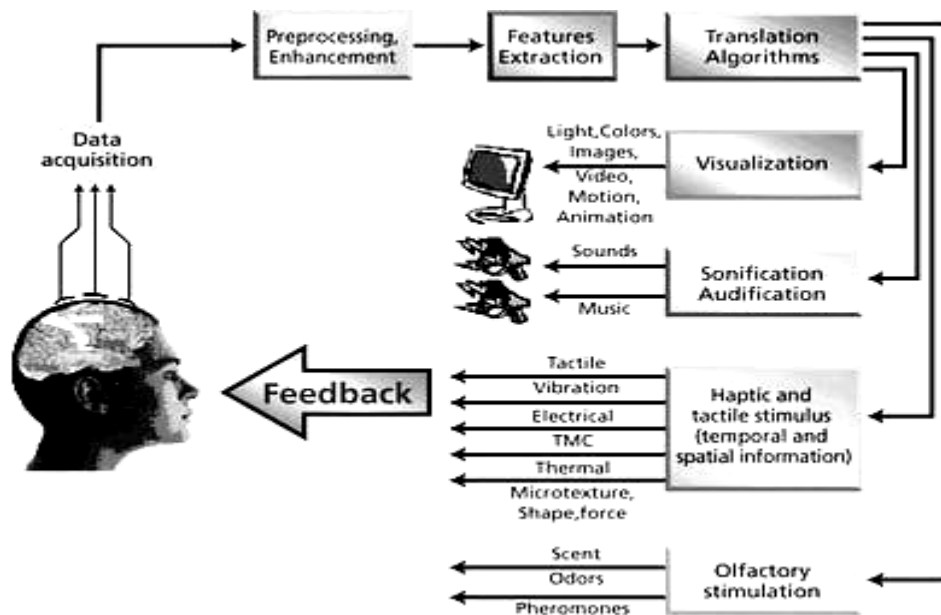
Implants are activated

Hypnotic trigger words

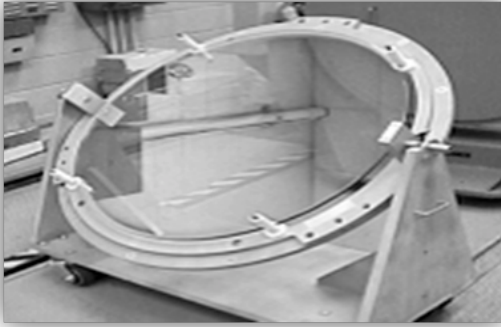
Cover up for the torture of the implants

(Hypnotic trigger words trigger sensation of radiations, bad taste, unbearable fatigue, pain in inner organs, head aches, dizziness and alike)

IMPLANTS LOCATIONS



LABS OF DIFERENT WEAPON FOR SPACE AND GROUND



Optical research laboratory space



High energy microwave laboratory



Laboratory of electromagnetic energy/RF effects



Laboratory studies of electricity



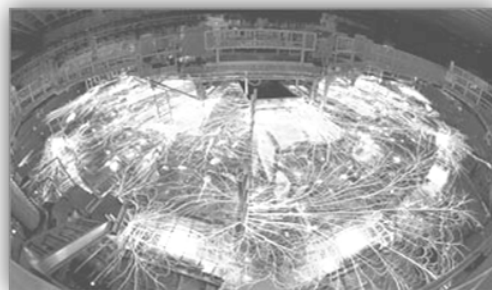
Laboratory plasma research



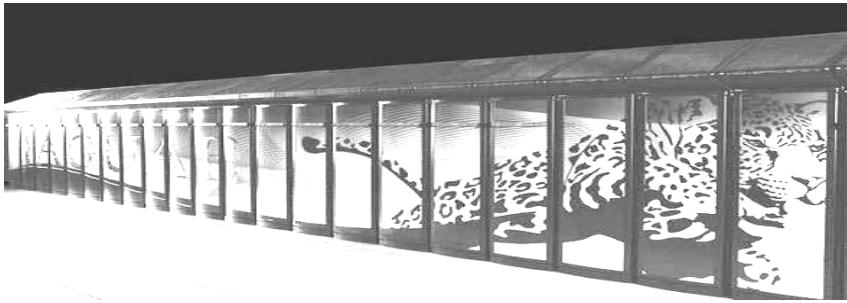
Laboratory high energy research



"Sandia National Laboratories" laser of electromagnetic energy



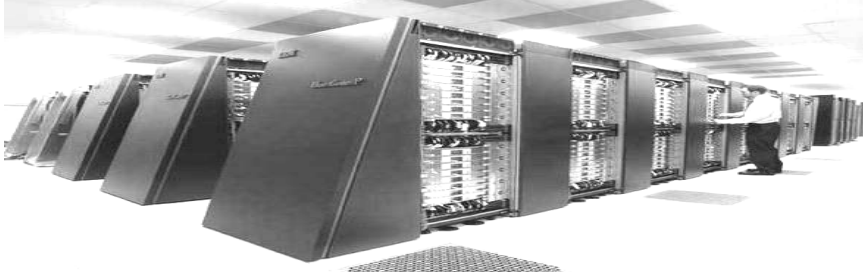
"NATIONAL LABORATORY"- NSA



National laboratory *"Oak Ridge"* cyber super computers *"JAGUAR"*



National Laboratorys *"Los Alamos"* research lasers, magnetism...



National Laboratory's *"Blue Gene/P"* Direct energy research



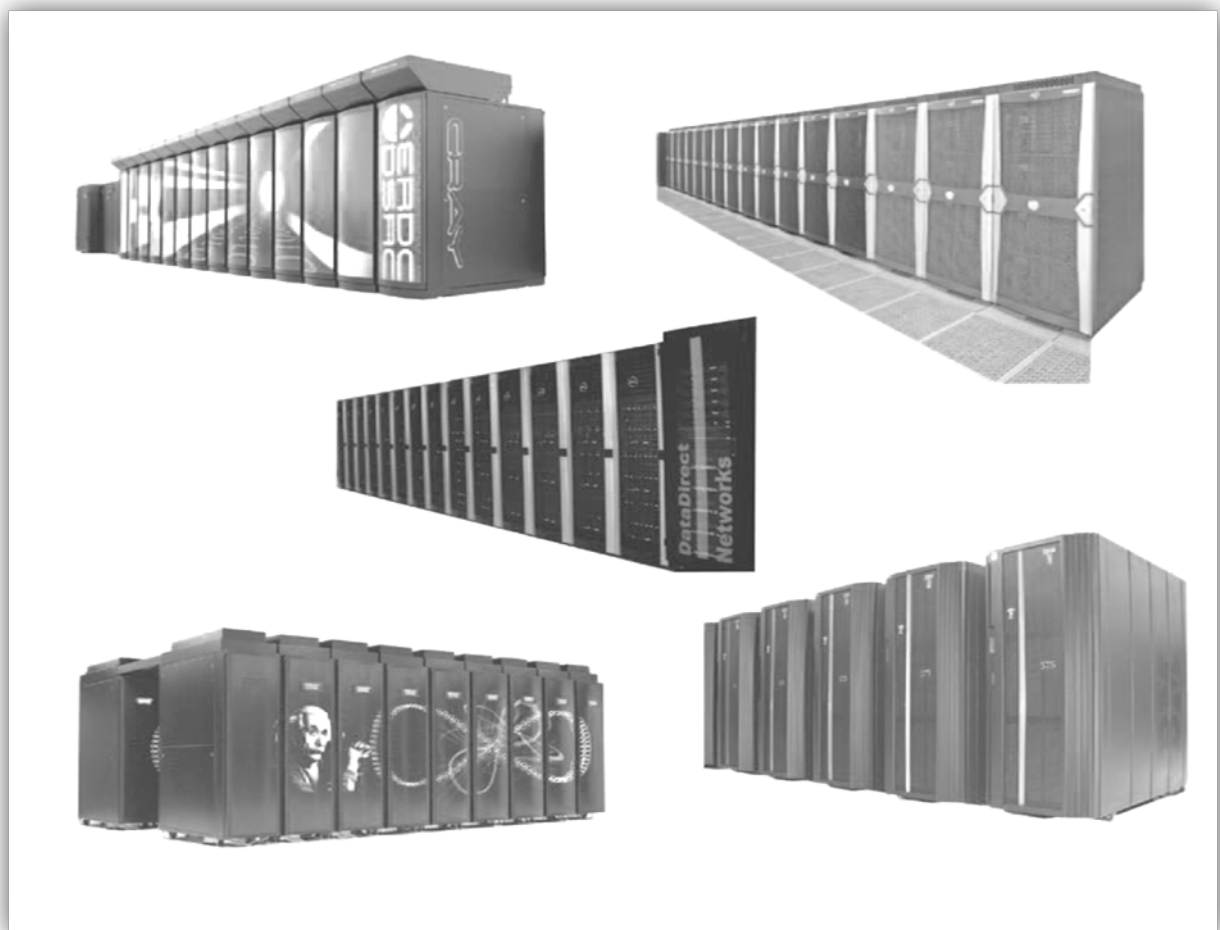
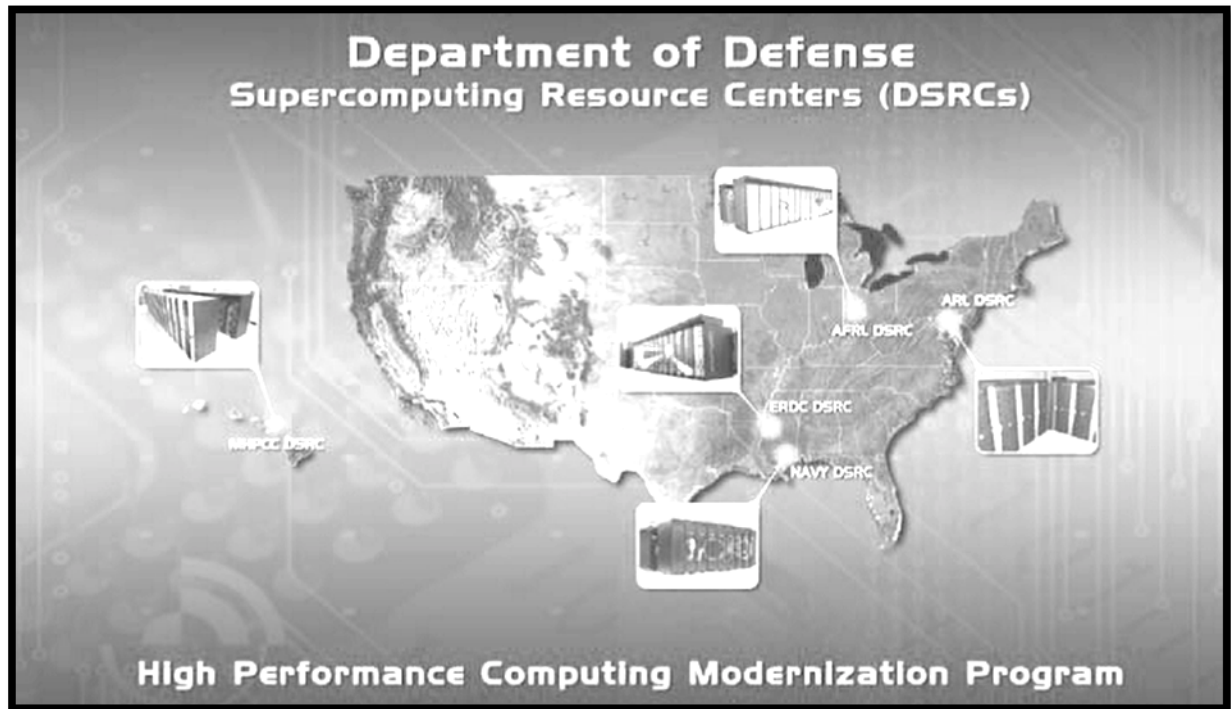
Sandia National Laboratory's *"Red Sky"* research futuristic power research



National Laboratory's *"Dawn"* most power computers

HIGH MODERN COMPUTERS

Garnet, Diamont, Da Vinci, Einstein, Mana



Super-computing Centers

- **US Air Force Research Lab**, Wright Patterson AFB, OH;
- **Arctic Region Supercomputing Center** in Fairbanks, AK;
- **US Army Research Lab**, Aberdeen Proving Ground, MD;
- **US Army Engineer Research and Development Center** in Vicksburg, MS;
- **Navy DoD Supercomputing Resource Center**, Stennis Space Center, MS; and
- **Maui High Performance Computer Center** in Kihei, Maui, HI.



» **Big Iron**« super computers



Linux Networx ATC

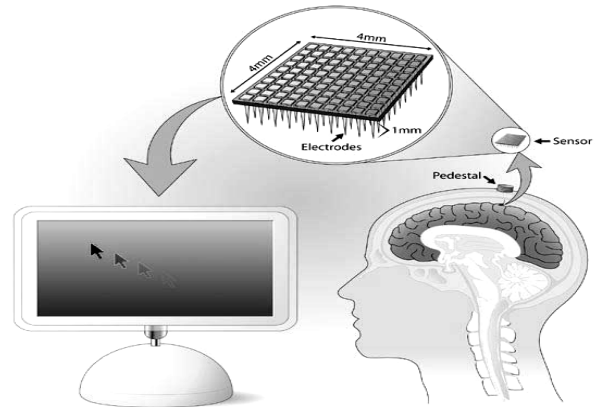
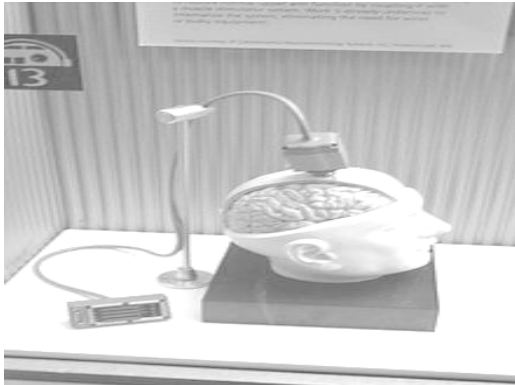


Super-computers "**Roadrunner**" for research nuclear weapons



The National Security Agency - NSA

Scientists Successfully implant chip that controls the Brain allowing thoughts, memory and behavior to be transferred from one brain to another
15 septembre 2011



Scientists working at the University of Southern California, home of the Department of Homeland Security's National Center for Risk and Economic Analysis of Terrorism Events, have created an artificial memory system that allows thoughts, memories and learned behavior to be transferred from one brain to another.

In a scene right out of a George Orwell novel, a team of scientists working in the fields of "neural engineering" and "Biomimetic MicroElectronic Systems" have successfully created a chip that controls the brain and can be used as a storage device for long-term memories. In studies the scientists have been able to record, download and transfer memories into other hosts with the same chip implanted. *The advancement in technology brings the world one step closer to a global police state and the reality of absolute mind control.*

More terrifying is the potential for implementation of what was only a science fiction fantasy - the "Thought Police" - where the government reads people's memories and thoughts and then rehabilitate them through torture before they ever even commit a crime based on a statistical computer analysis showing people with certain types of thoughts are likely to commit a certain type of crime in the future.

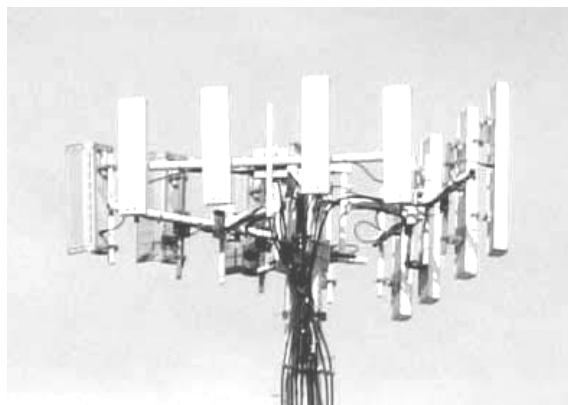
We already pre-emptively invade nations and torture alleged terrorist suspects with absolutely no due process of law, so the idea of pre-emptively torturing a terrorist suspect before hand to prevent them from committing an act of terrorism in the future really isn't that far fetched of an idea. Perhaps a less sensational example, than those I just depicted out of own of Orwell's famous dystopian novels would be using the technology as it is depicted the modern day Matrix movies, in which computer programs are uploaded into people's brains allowing them to instantly learn how to perform a wide variety of tasks.

FROM RADIO TELESCOPES TO ELECTROMAGNETIC WEAPONS

11.05.2007 RIA Novosti Moscow/Yuri Zaitsev

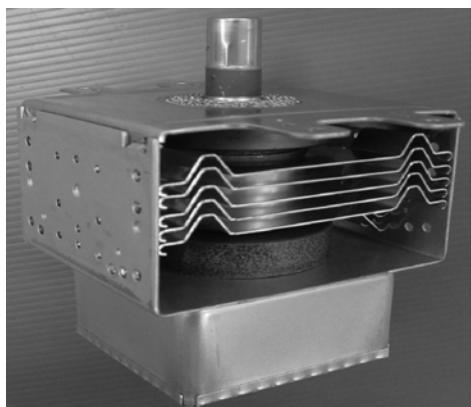


RT16 - Radio Telescope Latvia

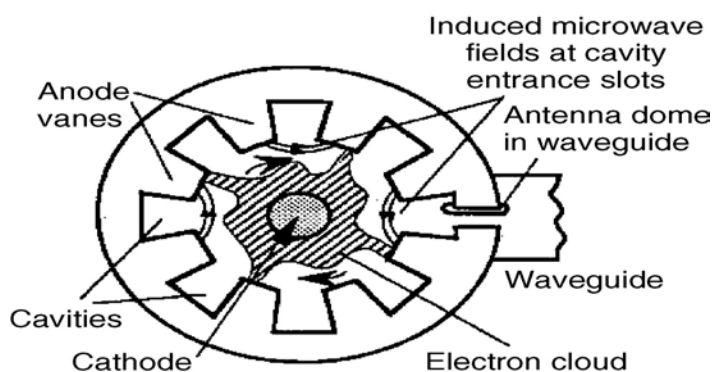


Microwave digital transmitters

A group of Russian scientists from Tomsk, Yekaterinburg, Nizhny Novgorod and Moscow have developed a series of unique compact generators capable of producing high-energy pulses of hundreds and even thousands of megawatts. This compares with the capacity of major Soviet hydropower station on the Dnieper or an energy unit at a modern nuclear power plant. The new generators are sources of electromagnetic radiation rather than electricity. Their main feature is a capacity to produce enormous power in a matter of nanoseconds. The impulses can be generated with a very high frequency.



(a)



(b)

VICE President of the Russian Academy of Sciences (RAS) Gennady Mesyats recalled that the first high-current electron accelerators were developed in the U.S.S.R. in the 1960s. In 1970s, Soviet scientists learnt to generate powerful microwave nanosecond pulses.

The current generators have no counterparts in the world. In effect, Russian scientists have made a breakthrough in what is called relativist high-precision electronics. The pulse is primarily of interest for fundamental research. Reporting these results to the RAS PRESIDIUUM at the beginning of this year, scientists emphasized that sources with super radiation effects can be broadly used in long-range high-resolution impulse based radiolocation and in studies of non-thermal impact of powerful electromagnetic fields on radio electronic components and different biological species.

Super-powerful pulse generators can test the reliability of radio electronic devices and the immunity of energy facilities to different impacts. They can imitate the interference caused by a lightning and even by a nuclear blast. Their tiny size and unique physical properties make their sphere of application extremely wide. The electromagnetic pulse (EMP) is a product of a nuclear explosion. It puts out of action even those electronic control systems that have withstood the shockwave and reduces expensive smart weapons to scrap metal. There are different ways of generating electromagnetic pulses - for example, it can be produced by explosion-induced pressure on a magnetic field.

Physicist Andrei Sakharov was the first to propose using this principle in a bomb in the 1950s. Today, records in the size of an induced magnetic field, maximum current and properties of such »radiators« belong to Russian scientists. They surpass foreign counterparts by 10 times. Depending on what facilities the EMP is directed at, the damage radius can be from several hundred meters to kilometers. Without creating a shock wave and inflicting visible damage, it destroys all enemy electronic equipment. Moreover, unlike electronic countermeasures, electromagnetic weapons are capable of damaging radio electronic components even if they are switched off.

At present, the infrastructure and troops of many countries are stuffed with electronic equipment. It will be the main target for electromagnetic weapons. The destructive effect is produced by the high acceleration of the magnetic and electrical components of the EMP. They induce voltage changes ranging from 100 volts to 10,000 volts in circuit networks and terminals of radio electronic equipment. The ensuing massive sparking of cable jackets, their contact to frame and the ground, and breakdowns in connectors put the equipment out of action and lead to fires and explosions. To understand this effect better, it is enough to imagine what will happen to your TV-set if there is a power surge - it will simply melt. The Americans were the first to use such weapons in combat, for instance in Yugoslavia. Some analysts believe that Electromagnetic bombs would have given the U.S. a vital advantage in the early stages of the war in Iraq. They could have disabled not only Baghdad control and communications systems, but also electronic components of missiles, even those located in deep bunkers. But the U.S. Command chose not to use Electromagnetic bombs for fear that they might disrupt its own radio electronic equipment in the area.

Today, many countries have electromagnetic weapons. Military experts predict a victory in future wars to those who will be ahead in ELECTROMAGNETIC RADIATION. In many cases, not only the military-industrial complexes but also different civilian organizations, research Institutes and Universities conduct studies in this field, thereby increasing the threat of radio electronic terrorism.

For example, a broadband high-energy and compact wave source is sold without any restrictions. In several fractions of a second, it can burn down all electronic equipment at an electric power station, substation or control tower. A short intensive pulse can instantly paralyze data bases, financial centers and industrial equipment.

**SECRET SERVICE: ELECTRONIC MIND CONTROL, ELECTRONIC WEAPONS USED ON PEOPLE
SURROUNDING THE TARGET WITHOUT THEM KNOWING THIS**

Electronic Mind Control is about forcing thoughts into your brain. Electronic weapons can make you cough, fart, burp, scratch your head, make you urinate, make you very sick, give you instant headache, cause heart problems, your death, etc. Both are used today by your national secret services on innocent people.

If you are a target of gang stalking and/or electronic harrasment/torture then please read this article. Also pass it to your partner, family, friends, because probably they will get attacked in one way or the other as well. Last months I have been thinking a lot about electronic mind control. Wrote something on my site about this some time ago, my limited experience with voices in the head, induced dreams and children reacting too often within a minute to my (sub-vocal) thoughts, and the feeling of a thought planted in my brain.

More recent (after about a year) I once again had this experience, the thought was returning until I responded to it and after that. The first time it was about a person, now it was a song, the idea is you start to sing it yourself. I believe this was not my normal thought pattern. Also on a few occasions I experienced an unnatural urge to do certain things. I notice these things because for 4-5 years now I think about what I am thinking and why I am thinking and why I am acting the way I act. The best I can say is that there have been thoughts that did not fit my usual thinking pattern: i.e. they are returning too often in a short time. But like I mentioned earlier, I can recall only 2-3 such occasions over a period of 2-3 years. Maybe I am attacked more often and I do not know? In this case I would just be responding to what comes into my mind, so there is no repeating pattern. I believe this is not possible, because I am very aware of what can be done, and always try to randomize/mix up my actions.

The last months I noticed more attempts to control me, to make me think of certain things, including a forced dream. Also at one time I got up and walked to the kitchen but when I got there I realized there was no reason to go there. I believe I was controlled to go there because a car was arriving for a neighbor house and I had to get out-of-the-way (they sometimes also do this by the urinate beam or defecate beam making me leave for the toilet). These attempts to control me are usually a few days in a row followed by periods of weeks without any try. My guess is they want me not to be cautious, alert, and then try again. All this has nothing to do with hearing voices. These are thoughts forced into your brain.

So at the moment I believe it is possible to make people do certain things with electronic mind control but with many limitations. Can the attackers make a family member think of you? Yes, they can. Can they make a friend call you at a moment they want? In general I do not believe this is possible, but some people may be more receptable and may just react. But a repeated pattern (repeated for the target) for a certain person is not possible. In that case they are just co-operating with the attackers. Can they make a friend think you are a strange person?

Yes, I believe they can but also for a limited time. After some time your friend will start thinking about his/her thoughts and discard them as being weird. So my summary at the moment is that people can be electronically mind controlled but only for a limited time with the same (kind of) thought. Can they mind control a group of people this way, e.g. a residential area? I do not think so because the returning pattern would alert a lot of people. Of course they can control a group of people at the moment simply by microwaving an area with e.g. a vomit beam (google: vomit beam) and everybody will feel sick.

Electronic weapons used on people surrounding a target

When you are targeted by gang stalking and/or electronic harassment/torture be aware that your attackers will do everything, I repeat everything, to eliminate you. They will use the whole world if necessary, including children, because they do not care, they are psychopaths, murderers, pedophiles. When you are a target you must be prepared for everything. You may think that now you know about these methods and technology you are prepared for the worst. But you are not! Your attackers will use these methods and technology also on people surrounding you, WITHOUT them knowing this. For example when you are with your friend in the same room, they may zap your friend with a scratch beam everytime you turn a page of the magazine you are reading. Or they may zap your friend with a cough beam every time you open a webpage on your computer. Or make you burp or fart and then do the same thing to people close to you. What they also love to do is to put a beam on your head giving you a lot of pain and when you go outside everywhere people are scratching their heads. A number of the people surrounding you is just co-operating with these bastards but there are also others who are involved but not knowing this.

There are many reports, including my own, about being beamed from the sky by military aircraft. Note that these beams are not stopped by roofs, walls, or metal so you can be attacked in your in your car as well. When you are driving in your car they may attack people in the car in front of you or behind you with the scratch beam. But again these people may also be co-operating with the attackers.

Electronic mind control used on people surrounding a target

Mind control is just another area of harassment, torture. When you are a target you must be very aware that they will try to manipulate you in all kinds of ways. There is no easy answer to this but creating extra awareness about what and why you think and do things certainly helps. You may randomly delay your reactions to your thoughts or not react at all, do other things..

Like the attackers attack people surrounding a target with their electronic weapons to make their body react, they may also attack them with electronic mind control devices, to make them react to what you are doing. For example when you start to type an email to friend X, your child playing in the same room may say after a minute something like 'daddy, is X coming this afternoon?'. Or when you have mailed an old friend this morning you haven't seen or spoken in a year, your partner asks you in the afternoon if you have mailed with this friend recently.

These are examples from my life. I am still researching this subject more, but I wanted to warn all people, not just targets, of these facts. The perfect tools to destroy relationships, friendships, ...

Electronic weapons and electronic mind control are not only used on a target. They are also the perfect tools to destroy relationships, friendships, business relations, etc. of the target.

By attacking the target, other people may observe strange behaviour. For example, when a neighbor leaves his house/walks by the target may start scratching his head, or is beamed with the urge-to-urinate beam. The net effect being that neighbors see a person always scratching his head when they leave their house/walk by, or see a person always leave the room (for the toilet) when they leave their house. (Another thing they may do is make the phone ring when a neighbor leaves his house/walks, to make the target move through the house visible for the neighbor.)

By attacking a partner or friend and making them react WITHOUT knowing that they are being used, the target may think they are part of plot against him/her. If the target does not know about this, this will certainly end friendships. If the target knows this can be done then the problem for the target is of course to analyze these situations correctly as the possibility exists that a person reacting is part of the plot against him (although the person himself/herself probably does not know the extend of the harassment).

How far will the attackers go?

You finally may think you now know it all but this is not true! The attackers are psychopaths, murderers, and as such do not care about anything, do not care about other people including children. They may use totally random people who have never heard of the target without them knowing it to get their job done. Example: the attackers know the target will be talking to a friend or other person. They also know this other person has daily contact with someone at work, person X. The attackers now attack both the target AND this random person X with the same electronic weapons attack, e.g. cook/burn the eyes, causing severe eye pain, or cook/burn stomach, causing severe stomach pain, or cause other very serious trauma. The target knows what is being done and is tortured. Person X is not knowing/understanding what is being done and is in fact tortured WITHOUT he/she knowing this, and probably will visit a physician, or be late at work. Now when the target talks to his friend or other person, he most probably will be told about what happened to person X, a horrible experience for the target. So here we have a chain of crimes, random people used and attacked WITHOUT them knowing it and the target not only physically tortured but mentally tortured as well. Will the attackers cause serious damage to the health of person X to get their job done? Yes, they will. Although their intention is not to cause the death of a person X, or cause permanent damage, this may happen as a result of their actions. Just like they use children to appear to cross by bicycle when their target leaves by car his driveway, or when they cook a target almost to death, or involve their target in constructed car accidents, or constantly try to drive the target into suicide by continuous suffering. So deaths or permanent damage may happen because they do not care, because they are psychopaths. Some people refer to these kind of setups as secret services games but there is no game here. This is about innocent people being abused, attacked and murdered! It cannot be stated enough: There are no laws allowing these kinds of harassments/torture. The above are illegal actions, horrible violations of human rights, child abuse, etc. These crimes are committed only because it is almost impossible to prove (Why do you think the human laser technology of the United States is called Active Denial System?)

In a few decades the US government (not the US people!) has become the most criminal organization in the world, responsible for the torture and deaths of hundreds of thousands innocent people in the world every year, and they are exporting their illegal and human rights violating crimes to all their (NATO) allies. They let other governments sign documents that forbid them to take Americans to international courts. Why do you think they would do that? People of the world, American people wake up!

Personal introduction to mind reading, mind control, mind rape

As most of the articles in my blog, this one also is based on my personal experience and observations. Shortly after the attacks on me started in 2000 I told a friend that they wanted to enter my head, my mind. I did not know about mind control, mind reading, gang stalking (organized stalking), electronic harassment at that time. But that is how it felt then, and I think it was a good summary of what was being done. I managed to keep the bastards out, but it took me about three years to adjust my way of thinking. I did this by learning of the evil cowards that make up our national secret services, of their beyond imagination crimes. I could not believe things like this were done and police looking the other way. I also learned about beyond imagination mental and physical pain inflicted on me, about fear. But now I know who they are and what they are. Only after accepting these facts I was able to develop what I call a new part of me. This new part allows me to switch on-the-fly between normal life and the life a person should not have to live. So, you can say I am not mind controlled or mind altered but that I developed a new extra piece of mind optimized to deal with the psychopaths of our secret services. You may want to read about gang stalking (organized stalking) and electronic harassment first. Next read about mind reading and mind control below so you will know when you, a family member, a friend, etc. is being attacked/hit. Note that I do NOT suggest that people around a secret services target all are mind controlled. They may as well (for whatever reason) be cooperating with these sick and disturbed creatures.

Gang stalking and electronic harassment are mind rape

Gang stalking (organized stalking) and electronic harassment/electronic torture are illegal methods and techniques often used by our secret services to eliminate their targets. These methods and techniques are used to drive the target into such a state of insanity that he/she commits suicide, collapses as a psychiatric patient, commits a crime or collapses/dies of continuous suffering, in other words, the world must believe something was wrong with him/her. Gang stalking and electronic harassment are tools that are used to murder a person mentally or physically. Not in a moment of rage but systematically, like turning pages in a book, we are talking about premeditated murder here. The mind of the target is forced into such a state that he/she will do everything to get rid of this mental and/or physical torture.

Gang stalking and electronic harassment are used to rape the mind of a target over and over again until the target collapses mentally or physically..

Note that a target may be murdered by other traditional methods as well like constructed car accidents, poisoning, drugging, induced diseases, directed energy weapons (heart), etc. See also:

Secret service: fear for the truth to be revealed!(17) - Gang stalkers and people cookers are murderers, the crimes they commit belong to the worst crimes in history.

1.State-of-technology

By experience I know high tech equipment exists to monitor human body muscle movement, brain. I do not know if you have to be chipped to be a proper transmitter but personally believe this is not necessary.

Let me give you an idea of the sensitivity of this through-wall monitoring equipment by the following examples:

2.Detection of body movement

When you are a target of gang stalking (organized stalking) the attackers try to drive you insane by reacting to everything you do most of the time being your body movements. Raise your arm and a door at a neighbor house is slammed, every time you turn on the other side in bed a dog somewhere outside barks, etc.

3.Detection of minimal breathing changes

If you hold your breath in bed a little bit longer than normal, a sound is made somewhere in your house. This is pretty amazing but it is only a fraction of what can be done.

4.Detection of closed eyes eye movement

Now you lay completely quiet in your bed, you relax and breath normally, your eyes are closed. With your eyes closed and relaxed turn your eyeballs without moving any other body part, without changing breathing, etc. At the same time you turn your eyeballs a sound is made, e.g. a bang on the wall, someone coughing outside. This is not a coincidence, every time you try this, a reaction follows. Of course this reacting can be classified as horrible torture, violation of all human rights, and the ones applying this kind of torture are the sick and disturbed of the planet, garbage of society. But it is equally important to recognize the existence of such equipment and what can be done with it.

The human body (including its brain) is an electromagnetic transmitter and high tech equipment is available to pick up its signals.

Technology has been developed and refined the last decades. Advances in computer technology make it possible to decode these signals from the human body when reading or controlling the body and mind.

Also, because most of this technology uses high frequency bands, the walls of your house or office are no barrier for these signals and distances can be hundreds of meters.

Compare a mobile phone used inside your house, you can receive calls and dial the number of a friend.

Mind reading

I have never experienced other mind reading than mind reading based on subvocal speech. Subvocal speech is based on the fact that most (jaw) muscle movement is identical to speaking when speaking silently to oneself.

When we think we often talk to ourselves without speaking the words. High tech equipment receives these muscle movements and translates into words.

This really must be a not too difficult technique to apply. Mind reading may be done covert, i.e. without the target knowing about it.

Some years ago a Russian military officer said that they had done mind reading on President Boris Yeltsin and had prevented him to speak about a certain subject. If they want to torture the target they let the target know that they are reading his mind. After the attacks started in 2000 and I was being watched 24/7, my thoughts were the only thing private. Then I got feedback about what I was thinking, a truly horrible experience, all privacy gone. After recovering from this discovery I did a lot of testing, what could they read, could they see what I saw, etc. It is not everything you think of they can read. It is in fact possible to send different information, wrong information to your mind readers. Mind reading used to torture and murder is just another example of the horrible crimes committed by your national secret services.

Mind control

Because of the attacks on me I now have a lot of personal experience with mind control. Emails referring to things in your life, people walking by talking words relating to your life, people staring at you everywhere you go, phone calls when you want to leave, traffic jams to make you miss appointments, preventing you to sleep, pigeons flying over you screaming when you leave your house (even crashing into your windows or car), poisoning, coughing on tv to react, in fact an endless list of criminal activities. I am not influenced very easy by these kind of things but must add that probably every person can break if applied with methods that make you very tired, exhausted.

There have been three types of mind control based on electronic weapons I believe I have been subjected to:

1. Hearing voices

They force voices or sounds into your head. When the attack on me started in 2000 and I was on the beach, voices of people I could see but could not have heard because of the distance, came to me crystal clear. An amazing experience. Much later, something alike was done when I was in the swimming pool, with my ears under water I could hear sounds as if above water. These effects may be easy to accomplish using infrasound (there is an mp3 player for swimmers. They just vibrate your bones, your skull).

2. Induced dreams

They make you dream about certain things you normally do not dream about. Not too long ago I woke up with an exceptional memory of a dream I had. I had induced dreams some years ago and maybe their common characteristic is the level of detail you can remember from these dreams. You do not have to dig to get the full story, it is there already. Induced dreams are very common for gang stalking and electronic harassment victims.

3. Forcing a thought into your brain

There were occasions where a thought kept returning many times a day for a period of 1-2 weeks. But it was easy to force it away. When this happened I had to think about reports of mind control victims and thought that perhaps they were forcing some thoughts or patterns into me too. Having read about mind control, it made me think that it may have been induced by electronic devices aimed at my head. Though not 100%, I am 95% certain that it was induced like the induced dreams. So here we have other methods used by our secret services to (illegally) control human beings. If you do not know about this technology and its capabilities than you will be confused, may be following the thought that was planted into your brain. Or you may start to believe that you are not normal thinking so much about a subject, may be a man, a woman, an event in your life. You may be forced thoughts into your brain and never knowing the difference from normal thinking.

This way people can be controlled e.g. in their attitude against other people, e.g. a secret services target. It is also possible this way to covertly set up someone to hate the royal family, to hate their government, some well-known person. I leave it to your imagination what you can do more when applied with other more conventional mind control methods like secret services agents saying certain things, creating events to influence.

This certainly is a way to create enemies (and then call them terrorists) and I believe it is being done this way .

Children may be very easily controlled by beaming voices into their heads, especially small children as they have no reference to what is normal. This can be done to have the child react to an event in the life of gang stalking (organized stalking)/electronic harassment target. For example, a secret services target is thinking of person X and his sub-vocal speech is read, and then within 30 seconds the child says something about person X. If this is a pattern then the child can be assumed mind controlled and used to drive the secret services target out-of-his-mind. Another example might be to set up a child against one of the separated partners, etc.

Mind rape

Mind reading and mind control sometimes is referred to as mind rape. The reason is that in general mind reading is not used to observe but instead to control a person in illegal ways or to inflict maximum damage (including death) to a person.

From Operation Mind Control (exerpts from) by Walter H. Bowart:

Mind control is the most terrible imaginable crime because it is committed not against the body, but against the mind and the soul. Dr. Joost A. M. Meerloo expresses the attitude of the majority of psychologists in calling it 'mind rape,' and warns that it poses a great 'danger of destruction of the spirit' which can be 'compared to the threat of total physical destruction . . .' ... [p. 23]

To stop mind rape we have to stop our national secret services

The human mind has no firewall like a computer meaning that we human beings are extremely vulnerable to mind reading and mind control. The computer revolution empowered enormous progress in decoding brain and body transmissions, as well as in generating transmissions that can influence brain and body. Technology and equipment have been annexed by (Western) governments and are further developed and used by military and national secret services. We are at a point in history where the scale, reach, capabilities of these devices has become such that measures must be taken to prevent misuse because that is exactly what is happening right now. Although attacking the mind of a person is a very serious crime under current law, it is good to implement new laws specifically addressing the attack of the mind. Also methods and equipment must be developed that can be used to detect and disturb e.g. cheap detecting devices that can be used by police and citizens also to be used in a court of law, and devices to jam or scramble our own important brain frequencies (preventing scanning of the brain), etc. Secret services are NOT good, in fact nothing is good about them.

They have become depots of psychopaths, murderers, child abusers. It is against the law to perform mind reading, mind control, mind rape, on a person, it is a violation of human rights. Still they do it because the culture has become that everything can be done what cannot be proven (and if someone tries to prove it, he or she is simply eliminated). This is not normal, it is a crime, it is sick.

We cannot rely on secret services changing by themselves, why should they. They don't want investigations, they don't want to go to jail. We have to disassemble them ourselves, break them apart. Jail them for the people they have murdered, for the lives of children they have destroyed.

Military and intelligence agencies have developed frightful electronic weapons in black budget projects the last decades. These weapons, based on radio waves, are used to disable, to present pain and torture, to drive into suicide, schizophrenic or criminal behaviour. This is done by cooking/irradiating body parts, letting a victim hear voices, reading the mind, etc. through walls and from distance. Read and prepare yourself for the people cookers, you may be next!

Try to recall the most sick and disturbed persons you have ever read or heard about. Now try to imagine there are persons far worst than the ones you know, torturing innocent people slowly to death, torturing and murdering children, even torturing and murdering animals. That is really difficult to accept for us, normal people as we are. We simply do not want to believe this kind of evil exists, it makes us sick, we may start vomiting when stories so horrible are being suggested, being told.

But it can be even worst. Imagine this evil is related to your government, is being approved, executed, controlled, outsourced by your national secret services including military. It is all hard to believe isn't it.

Unfortunately for your peace of mind these disturbed persons really exist, and unfortunately your national secret services are really involved in these horrible activities. But even more unfortunate are the victims of these horrible crimes. The new generation of electronic weapons is capable of burning and cooking humans, destroying (exploding) body tissue, or cause heart attacks. This is all possible from large distances (hundreds of meters) and through walls. These weapons are now (2008) being used at large by secret services to eliminate people: incapacitate, drive into suicide, insanity, criminal behaviour, or are just used to cause heart failure, brain damage, etc. They replace knife, bullet, poison, car accidents.

Push button torture & murder - cooking people

Secret services have turned into depots of psychopaths and murderers. And it is getting worse. They now recruit people to press the buttons of these electronic weapons, button[1] is cook-a-person, button[2] is simulate-a-heart-attack, button[3] is simulate/cause-kidney-failure. Can you image a person microwaving someone like a microwave oven cooks meat?

Electronic weapons, capabilities April 2008

Low-power microwave weapons can be hidden e.g. in a shopping bag and are used to distract e.g. by giving you burning sensation, stings, make you burp or fart within seconds, blur your vision. High power microwave (HPM) weapons can be installed everywhere and mounted in cars (including your own) and can be used to cook a person like a microwave oven cooks meat, to 'shoot' and burn.

Most of these weapons can be aimed very precise, that is why they are called Directed Energy Weapons (DEW). From a distance (and through walls) they can hit you, but not the person sitting next to you. Sometimes these weapons are called non-lethal because they are designed to be applied only for a very short period with the intention to incapacitate people or make people get out of the beam, not to kill them immediately. All experts agree that zapping persons for extended periods is very damaging, which is easy to understand, compare reports about cell phone irradiation.

The perfect weapon, does not kill (immediately), leaves no evidence

If you want people out of the way without evidence you cannot use a gun. There will be proof of a bullet and damaged tissue. With current electronic weapons eliminating people is very easy and best of all, elimination is without evidence. When you want to prevent a person from giving a presentation at work, you can heat him up the night before so he will feel sick, give some diarrhea, make him cough when talking, make him scratch his head, etc. If this was done to you, would you be able to understand this? Probably you would think you just had the worst luck that day.

BUT THIS WAS NOT BAD LUCK:

YOU WERE INCAPACITATED WITH ELECTRONIC WEAPONS.

In other words, you were cooked that day. They also may do this to the target's children, meaning the target must stay home or go home to take care of his child.

Low power/low intensity is just as damaging to your functioning as a human being

Electronic weapons will not immediately kill you or burn a hole in your body. When you are in a meeting someone in the same room can zap your head with a low intensity device, so you want to scratch your head. Someone may fire an energy burst at your throat so you start coughing when you are doing your presentation. They may mount a microwave weapon in your home aimed at your legs when you are in bed and after a month you have to see a doctor because your feet really hurt. They attack your credibility or have you out of the way during important events. These are all very damaging low power/low intensity applications. You may lose your job, a promotion, your family, etc.

High power/high intensity is horrible torture

If the target understands what is being done to him they will increase frequency and intensities. The target gets cooked by HPM (high power microwave), for example every five minutes he receives a burst making him burp, giving a burning sensation on the back, feeling cooked inside where beam went through, and in case of high intensity there is also a burning sensation where the beam leaves the body. Or they make the target's body react to what is happening in his surroundings.

E.g. everytime a car passes by, the target is zapped so that he will burp or fart at the same time (it takes 1-3 seconds to make a person burp or fart). Or they burn his intestines (tailbone) so he will suffer horrible cramps, burn his back with insane intensity when he is in the swimming pool, shoot HPM at him when he is running.

THIS HORRIBLE TORTURE IS CALLED PEOPLE COOKING!

Everybody can be a target

In some cases you are just a one time target, and once they they got what they want they will go away. In other cases, you are on a list and must be eliminated, not because you are a bad person but mostly because you just was at the wrong place at the wrong time. If 1-out-of-20 people in your country are connected somehow to the national secret services network (probably much more) then chances are you have co-workers, friends, acquaintances who are part of this network. Of course they will not tell you this.

Part of the population is eliminated to let the sick system survive i.e. recruit new agents (murderers), see also the links below. May be you have something they want, e.g. your house is at a strategic position (corner), may be you criticize the policy of your government, may be you are a loner, may be you are an activist, may be you play piano on sunday mornings, may be you know something of some person.

You may argue that the chance you become a target is very small. That is right. But don't think you cannot become a target if you live a normal life, in fact most persons placed on this list are friendly, non-shooting back persons. You may become a target more easy then get involved in a car accident.

Physical and mental death

If you have been selected to be eliminated, see above, neighbours, co-workers, friends, etc. are recruited and become part of the sick system. The aim is your physical or mental death: suicide, psychiatric patient, criminal, disease caused by irradiation or poisoning. Although gang stalking techniques are used for this and are very effective for may be 90% of the cases, the process is significantly speeded by applying electronic weapons. These weapons are used to make a target look like a schizophrenic.

If the target does not know about these weapons he may think he has been hit by the fury of God himself. If the target does know, then it is very difficult to convince other people what is done to him. These weapons have been developed but they did not tell us and did not develop methods to detect these kinds of harassment.

Governments/secret services keep electronic weapons out of the media, police is not instructed on what to do with complaints like these.

Covert electronic harassment/torture - examples

It is called covert as the target being burned/cooked has no clue of what is happening. Examples:

- Heated body, feeling sick like having the flu
- Headaches that come and suddenly disappear
- Sting sensations like a fly or mosquito
- Blurred vision
- Irresistible coughing
- Very serious diareah
- Heart attack/cramps

- Kidney pain
- Excessive burping
- Excessive farting
- Stomach pain
- Stomach bubbling
- Intestinals cramps
- Pain in the legs
- Pain in ankles
- Heel muscle
- Reduced strength in hands
- Aging the body

If you do not know what can be done to you, you will get a wrong diagnose because nothing is wrong with you (in the first place)! You may even get operated.

Covert electronic harassment/torture - How it is applied

Most of this harassment is done the same ways people are gang stalked. If you tell someone about these incidents, they will say:

I got the same problem sometimes.

- When you bend over they hit your back
- When you stand on one foot e.g. in the kitchen to get something from a cupboard they hit that foot
- When you turn your head, they hit your neck
- When you sleep they cook your legs so they will feel stiff the next morning
- When you sleep they wake you by cooking your stomach
- When you rub your eyes they blur your vision

Also important is that they 'help' the target by making things worst.

Example: suppose your left leg becomes painful because you hit a piece of wood by accident. Now, they will zap your leg at the location you feel pain over and over again, including nights, to make you suffer (maximum pain).

Non-covert electronic harassment/torture - examples

It is called non-covert as the target being burned/cooked knows exactly what is happening.

- All mentioned above
- Make your body react (burp/fart) to cars driving by your house
- Burn your anus
- Microwave you with insane intensity (you feel like being cooked alive)
- Shoot you with HPM when on the street
- burn/cook your body
- Leave visible evidence of their attacks
- Burn your child e.g. in the stomach, then burn you in the stomach
- Burn/cook your children reacting to what you say/do
- Shoot your child in the eye when you dry the face after a shower (to make it appear you hurt them)

Also important is that they 'get excited' when the target makes mistakes.

Example: suppose you release a software update but something is not correct. Now they will beam you on the head, the back, your child, etc. to drive you out of your mind, insane. Sometimes they wait for a long time just to get a good 'shot'.

The people cookers belong to sickest species on the planet

As already stated above, the only thing people applying electronic torture have in common with normal people is that they look human. They are murderers and as such there no boundaries for them anymore. It cannot be emphasized enough, the persons applying electronic harassment/torture belong to the sickest species on the planet. I know, other horrible torture also exists, like cutting organs from a living persons. You cannot compare horrible torture, but day-by-day torture by people cooking, including children, certainly is very horrible (the end result being physical or mental death).

The people cookers are part of the psychopaths and murderers that make up your national secret services. We, the normal people, created laws and human rights. The ones who violate these must be jailed. Let's jail these bastards!

Weapons based on radio waves, compare microwave ovens, are used by secret services to drive persons insane. Even if you know what is being done, you cannot protect yourself against these horrible attacks. There are no ways for common people to prove these attacks and many of them are labeled schizophrenic.

Even a secret service has its limits. They cannot eliminate every target by murdering him or her with a bullet, knife or overdose. But hey, mental murder is often better giving a group of people that can be experimented upon with new medicine, drugs, etc.

To drive a target insane extremely advanced technology is used. One is the monitoring equipment. They look through walls and can see everything you do in detail. They also use very advanced computer manipulation technology to change the behaviour of your PC, e.g. it picks up new mail from your ISP only at certain moments. Another method is mind control. By playing a movie on a device close to you, e.g. the other side of the wall, you will think you have dreamt about this. And finally there is mind reading.

They will put a scanner on your head and record / compare your Behaviour. These advanced technologies are not only used to follow a target or record behaviour of the target. In addition they are used to react to target in one way or another. The target is second by second remembered by e.g. a sound at the neighbours, outside, mail arriving at certain moments, cars honking at certain moments etc. that he is never alone. People not knowing about this advanced technology (most people do not know) will be driven insane. Advanced technology is used to let you hear strange things, your dreams are controlled, apparatus makes strange sounds when you look at it, when you go outside to buy something specific it is sold out everytime, when you go outside people look at you and smile where you go, the car driving before you is exactly going where you go, etc.

A decade ago many of these intrusions were possible as well but with all this new advanced, compact, technology, it is becoming very easy to drive persons into psychiatric behaviour. Mind control is a controversial subject most importantly because more desinformation has been released about mind control than with any other subject.

Mind control is very real however and was performed by our national secret services yesterday and is performed by our national secret services today!

From 50 years...



Top level mad scientists from Nazi Germany were actually brought to the United States through "Operation Paperclip", and have been continuing their work to this day in places like Brookhaven labs, Cold Spring Harbor and Plum Island.

and Today....in 2000

BIG BROTHER'S COMING!

Revealed: Secret plan to tag every man, woman and child

CODED MICROCHIPS implanted in every person in the country would tie all of us into a master computer that could track anyone down at any moment, and plans for such a system are already under way whether you like it or not!

"The secret scheme is being touted as a service for the protection of the people by high government officials, but some insiders who object to the move say it's just another way for Big Brother to control its acts."

Transmitters

"Top-level national security agents are trying to convince sources in the Bush Administration to begin the project in which every man, woman and child will be implanted with a tiny transmitter," claims Davis Milerand, a critic of government intervention who says he has received leaked information from inside sources. "They're trying to say this will be a good way for authorities to quickly track down missing persons and children, as well as criminals and spies."

Implantations

"But with the astounding technology of today, everything about you could be contained in one tiny microchip, which would be connected to a government computer."

"Any government agency will know what any person has done and is doing at any time."

"Other sources say the tiny transmitters can be injected painlessly from a tiny gun in humans without them even knowing it, through a nationwide program."

"...all the government"

By JOE ITRICK

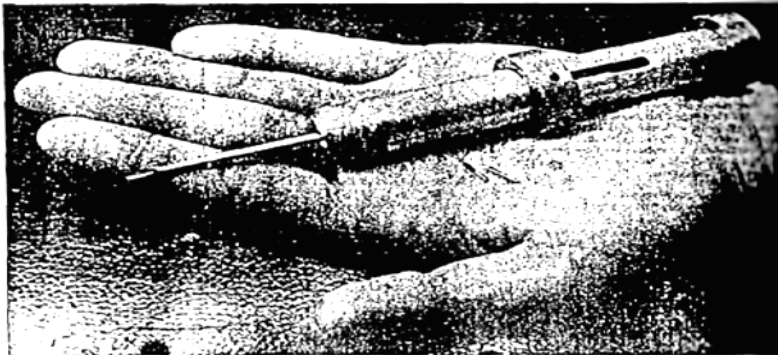
would have to do is make up something like the swine flu vaccine," Milerand says.

"Imagine if they said there was a vaccine for AIDS. People would rush in droves to get shots."

"The doctors themselves may not even know what they're injecting. They could be told the microchips are genetic implants that reprogram the body into fighting disease."

He adds, "The program would require all federal, state and local government workers to undergo the injections."

"It would only be a matter of time if one person is implanted with a microchip, a slave to the government."



• TINY MICROCHIPS containing transmitters could be injected painlessly in humans with a small gun like this.

No-sleep diet keeps you wide awake

IF YOU THINK there just aren't enough hours in the day, you can now get added time — thanks to a revolutionary new sleep method that helps people stay up nearly all night.

The new sleep system is called "Micro-Somnia," and it's billed as "The Entrepreneur's Guide to Sleep Reduction" by sleep management researcher Benjamin Plumb of Miami.

Plumb gets only 4½ hours of sleep each night and has a few

brief catnaps during the day. He says that through Micro-Somnia, he hopes to introduce short sleep "as a safe viable tool for people to use in increasing productivity."

Writes

The researcher cut red meat out of his diet, eats less goopy sweets, takes daily naps and avoids doing high-impact exercises in his leisure time.

He eats stuff like beans, rice and tofu, and does light exercises like walking and yoga.

Besides his prescribed diet and exercise regimen, the tireless sleep expert says he writes down his goals for the next day before retiring for the night — so he'll wake up excited the next morning.

Plumb says his brand of sleep management is only for "highly motivated, extremely goal-driven adults" because children and pregnant women require more sleep for health reasons.

Some super-successful people like Winston Churchill, Napoleon and Thomas Edison worked won-

ders while catching only a few winks a night, he notes.

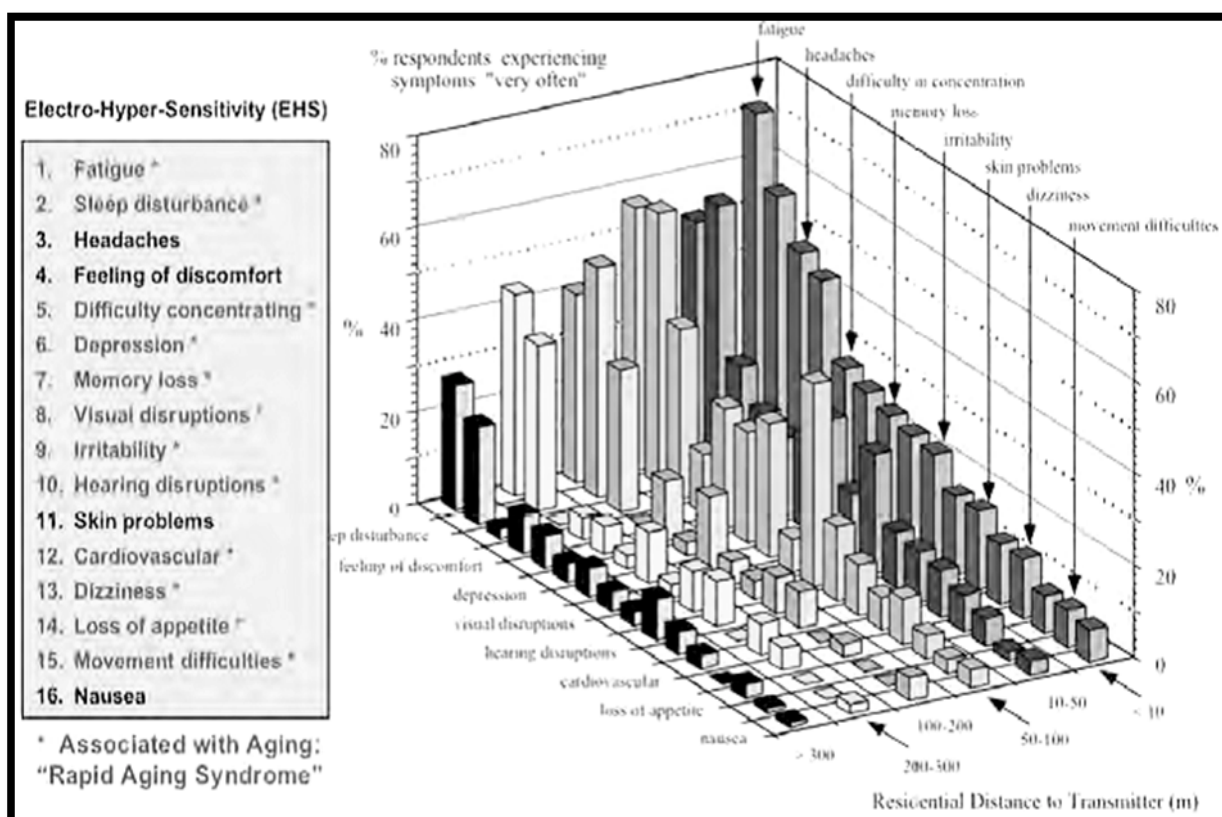
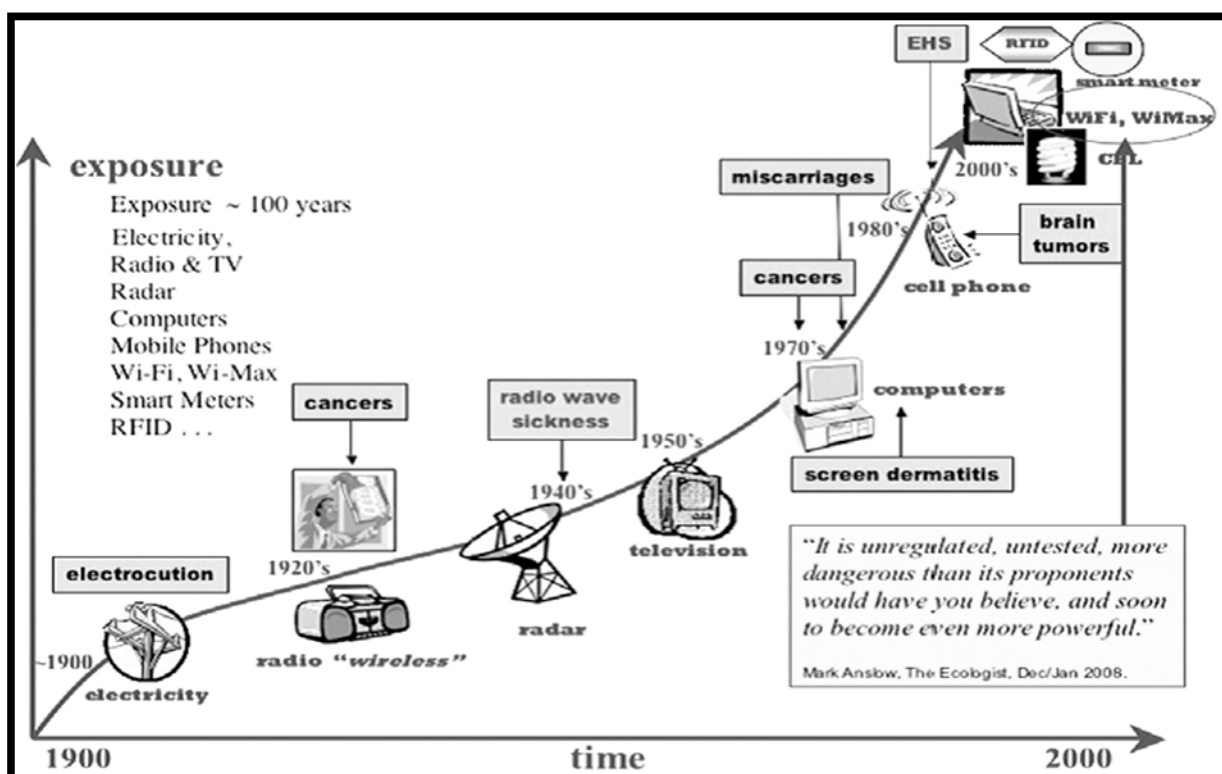
But they were born about 100 years and their nocturnal tendencies came naturally.

Now, however, Plumb says his program can make short sleepers out of sleepaholics who work nine or 10 hours each day huddled under the covers.

He figures the best example for his Micro-Somnia technique are corporate types who'd rather be awake pursuing them than wasting their time in bed.

— KEN KRAVITZ

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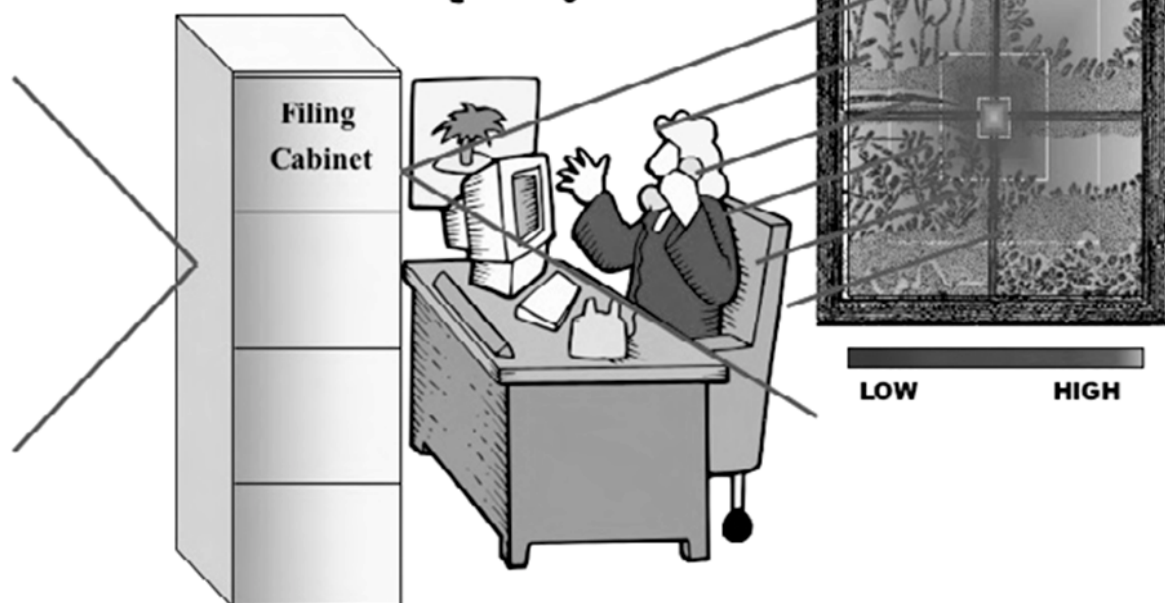


Sources of Dirty Electricity

- computers
- variable speed motors
- television sets
- entertainment units
- energy efficient lighting
- energy efficient appliances
- dimmer switches
- power tools
- arcing on hydro wires
 - loose wires
 - tree branches touch
- neighbors



Metals reflect, block, & focus radio frequency radiation



NLW Effects and Effectiveness

NL Stimuli

- Directed Energy
 - Light
 - Sound
 - Radiofrequency
- Electrical Energy
- Kinetic Energy

Effect

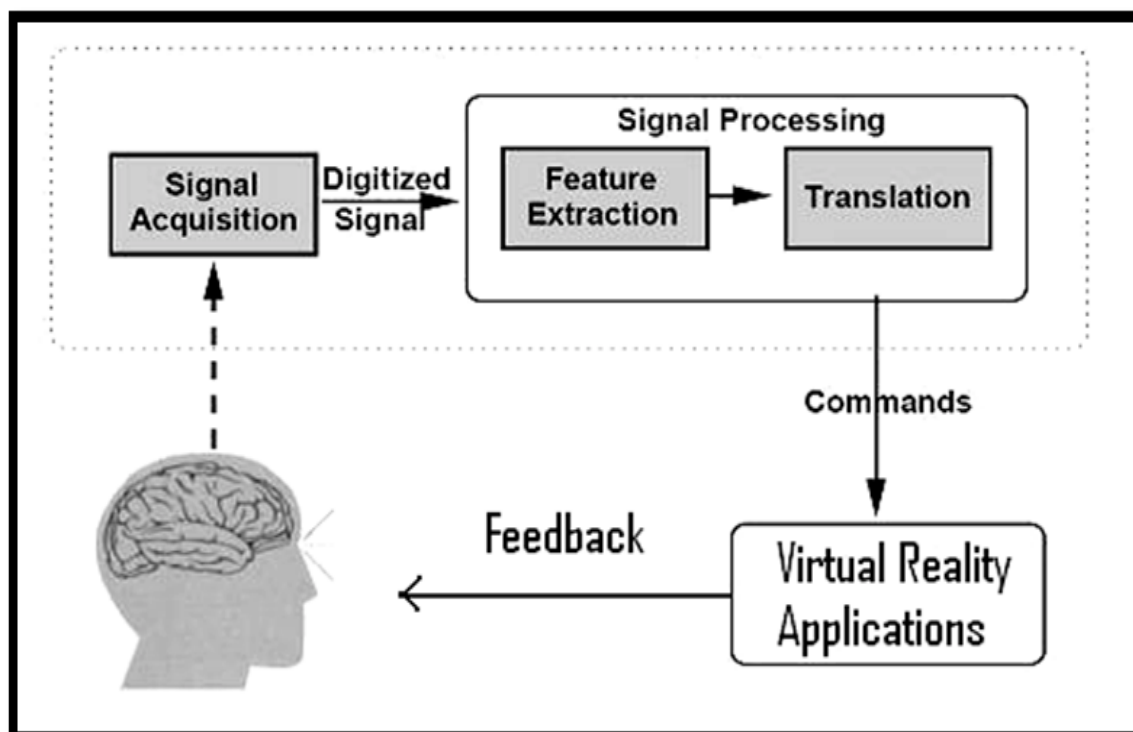
- P(Intended Effect)
- P(Non-Permanent Injury)
- P(Permanent Injury)

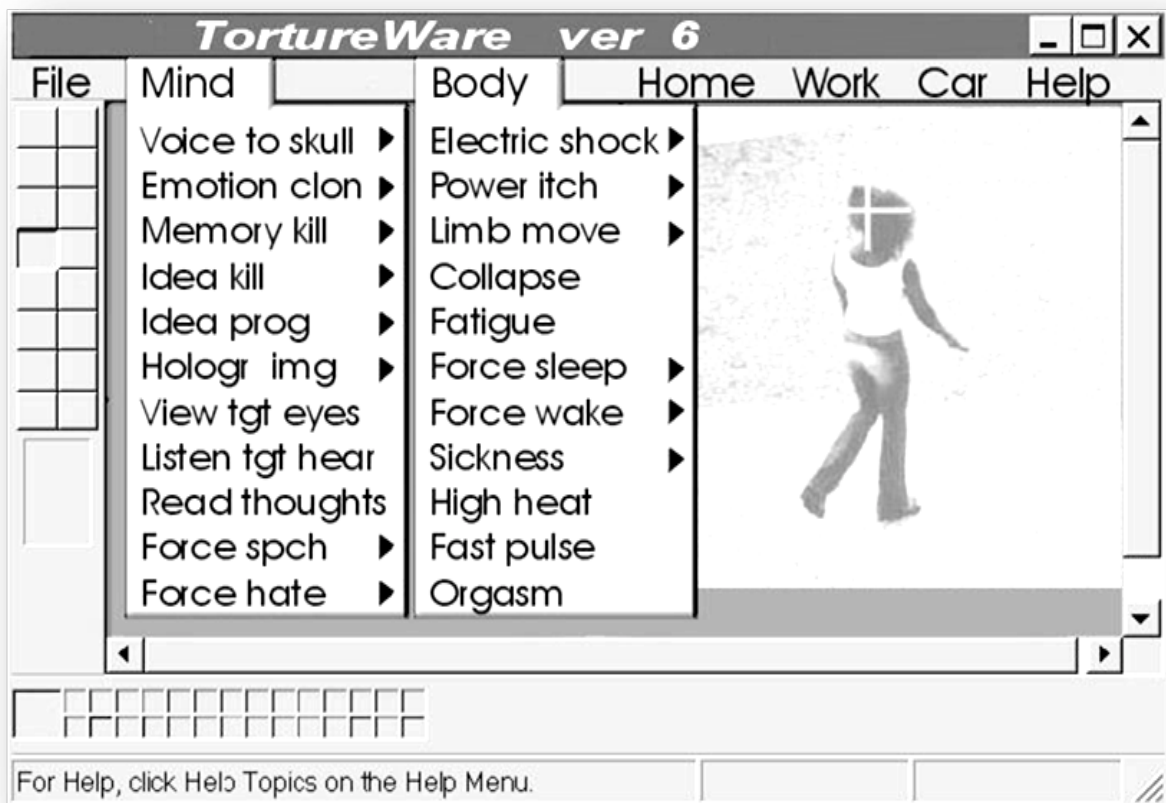
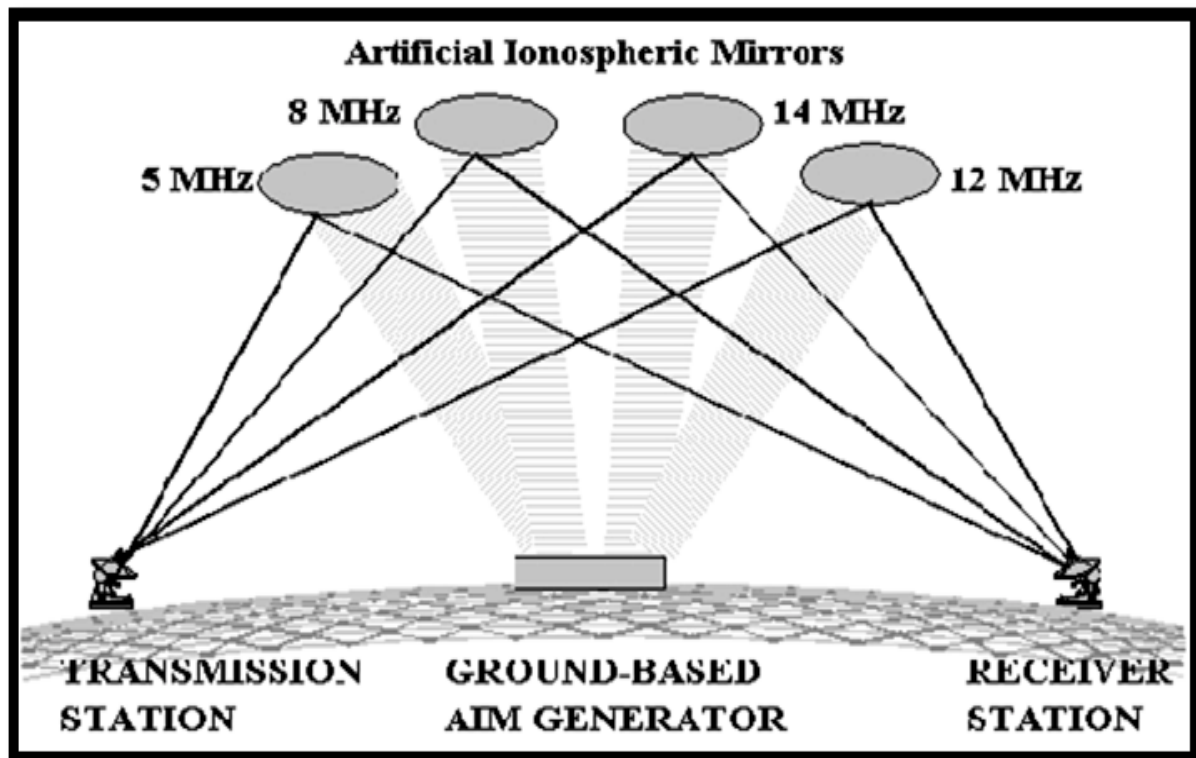
Effectiveness

- P(Individual Response)
- P(Crowd Response)

Desired
Non-Lethal
Human
Response

Both the “effect” and “effectiveness” must be clearly understood





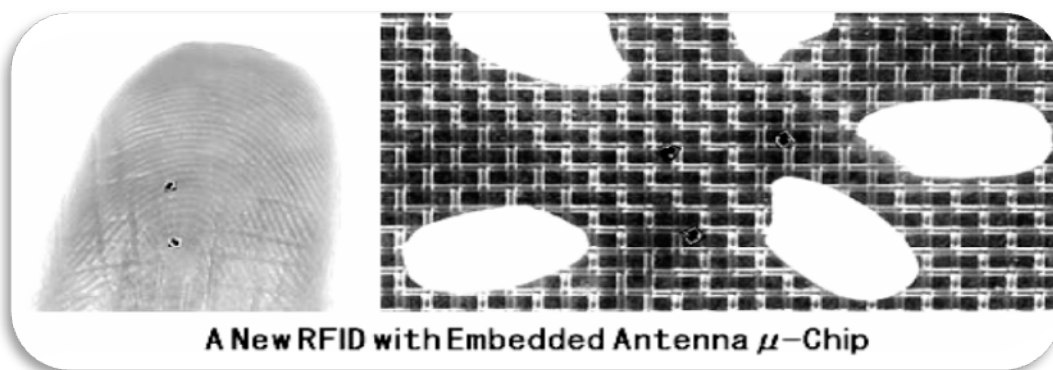
The World's Smallest RFID IC

Radio Frequency Identification Integrated Circuit

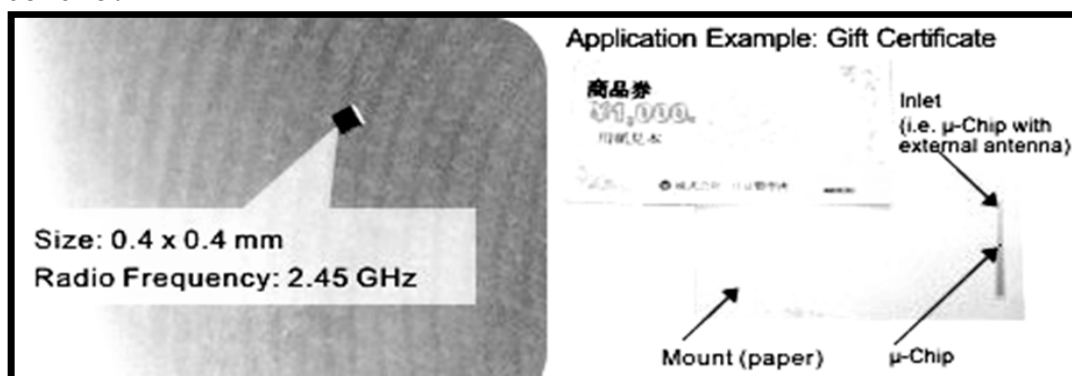
U-chip Electronic Numbering of Products and Documents using the "μ-chip" (or mu-chip) supported by a Networked Database unleashes new Business and Life Style Applications that facilitate innovative Manufacturing, Distribution, Consumption, Tracking and Recycling operations. **Concept** The RFID, wireless semiconductor integrated circuit that stores an ID number in its memory, was proposed about a decade ago as an alternative to the barcode. Its use, however, has so far been limited to a few applications where its advantages offset its relatively high cost.

***Size compared to a grain of rice*!**

The World's Smallest RFID IC



The μ -chip is Hitachi's response to resolving some of the issues associated with conventional RFID technology. The μ -chip uses the frequency of 2.45GHz. It has a 128-bit ROM for storing the ID with no write-read and no anti-collision capabilities. **Its unique ID numbers can be used to individually identify trillions of trillions of objects with no duplication.** Moreover with a size of 0.4mm square, the μ -chip is small enough to be attached to a variety of minute objects including embedding in paper. Manufacturing, distribution and tracking systems can be built or enhanced using the μ -chip with an event-driven accumulation of, and on-demand access to, information stored in a database through the network. By coupling this database with the versatility of the μ -chip new business and life styles applications can now be brought to reality. New applications allow manufacturing, commerce and recycling processes to be operated in a way that has not been possible before.



***Size compared to a human fingertip**

26. PROTECTION FROM MICROWAVES:

1. Acrylic SRT-3 Q-Link



Sleek and chic, with a dual-tone design, this beveled-edge triangle has two distinct sides, each making a unique statement. It can be worn by both men and women as a signature piece, dressed up or down. Designed by internationally acclaimed designer Neville Brody and powered by our next-generation SRT-3, the result is leading-edge attitude and super-charged power.

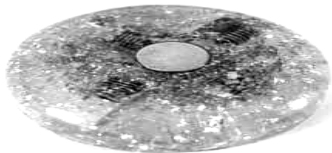
2. QMX1 Defender



"Defense for Psychotronic Waves and Psychic Attacks"

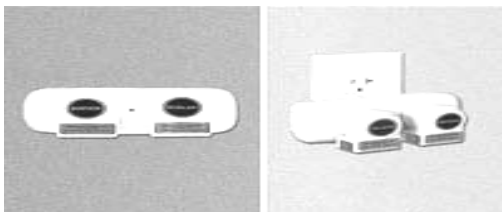
Scalar Field Frequency tuned to protect your body & brain from "Psychotronic Attacks" from ELF, HAARP, Microwave, and Psychic Attacks. Converts electronic and psychic attacks to positive energy.

3. Killer Implant



The implant killer was born out of a need to be able to eliminate nano-electronic implants placed illegally in our bodies by various government agencies and off-worlder entities. These implants control our behaviors, our state of mind, our moods, our energy levels, our ability to think abstractly and follow deeper lines of inner thought. They deplete our various systems, cause lesions and sores in the tissue and very often contain various nerve and protein coats, functioning as time bombs of death, through renal, kidney, and liver failure.

4. EARTHCALM - SCALAR HOME PROTECTION



A powerful EMF protector that grounds you into the earth's electromagnetic field—creating a sense of calm and peace throughout your home. The Scalar Home EMF Protection System utilizes the principles of cyclotron resonance and scalar resonance.

juni j 2011